Bombyx ma Homo sapi 8 T3 end of Plasmodiu

108

74 Sequence Plasmodium

Title: Perfect score: Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

96q 86q

08 08

Minimum | Maximum |

Database

```
AC073883 Mus muscu
AL096783 Plasmodiu
AX346425 Sequence
AB070263 Bombyx ma
AC068138 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (16-AUG-1999) Medical Microbiology, University of Manitoba, 730 William Ave, Winnipeg, MB R3E 0W3, Canada NCBI staff are still waiting for submitters to provide appropriate feature information.
                                                                                           AL034560 Piasmodiu
AX344563 Sequence
AX344564 Sequence
AX381283 Sequence
AX344573 Sequence
AX3446463 Sequence
AX3446463 Sequence
AX3447400 Sequence
AX3445125 Sequence
AX344512 Sequence
AX344512 Sequence
AX346270 Sequence
AX346210 Sequence
AX346210 Sequence
AX346210 Sequence
AX346315 Sequence
AX346316 Sequence
AX346316 Sequence
AX346318 Sequence
AX346318 Sequence
AX346318 Sequence
AX346318 Sequence
AX346318 Sequence
AX346318 Sequence
AX346310 Sequence
AX346310 Sequence
AX346310 Sequence
AX346310 Sequence
AX346310 Sequence
AX346310 Sequence
AX34530 Sequence
AX346317 Sequence
AX34630 Sequence
AX34630 Sequence
AX34630 Sequence
AX34730 Sequence
AX36430 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                             AX346974 S
AC102154 N
AC005506 E
AL034559 F
                                                                                                                                                                                                                                                                                                                                                                                                                       AX346392
AX346267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cryptosporidium parvum.
Cryptosporidium parvum
Eukaryota; Alveolata; Apicomplexa; Coccidia; Eimeriida;
Cryptosporidididae; Cryptosporidium.
(pases 1 to 1310)
Simonsen, J.N., Kramer, M., Lowden, C. and Wilkins, J.
Neutralising antigen 2 recognized by human immune sera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 1310)
Simonsen, J. N., Kramer, M., Lowden, C. and Wilkins, J.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cryptosporidium parvum unknown mRNA sequence.
AF178459
AF178459.1 GI:9957266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                   AX347330
AE001398
PFMAL4P1_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1310 bp
                                                                                                                                                                                                                                                                                                     AX344561
AX346945
POPHOMT3B
AF178459
AX344574
PFMAL3P3
AC073883
PFMAL13P9
AX346425
AB070263
AC068138
CNS06EHA
                                                                                                                  AX344563
AX344564
AX344564
AX344573
AX344573
AX3451529
AX251529
AX251529
AX347400
AX349121
AX083744
AX34616
AX34616
AE001384
                                                                                                                                                                                                                                                                                                                                      AX251943
AX281173
                                                                                                                                                                                                                                                                                                                                                                                                                       AX346392
AX346267
                                                                                                                                                                                                                                                                                                                                                                                                                                             AX346974
AC102154
AC005506
PFMAL3P7
                                                                                                                                                                                                                                                                                           AX345237
                                                                                                                                       7.1 11670
7.1 349980
7.1 5814
7.0 215532
7.0 17280
7.0 115224
                                                                                                                                                                                                                                                                                                                                                                   9110
14867
110000
175522
1310
349980
1116696
211376
78578
6928
                                                            15928
168698
                                                                                                         349980
349980
349980
                                                                                                                                                                                                                            7040
                                                                                                                                                                                                                                                                     17389
17889
10528
349980
10039
                                                                                                                                                                                                                                                                                                                                                                                                             6123
8392
17893
40862
73828
205429
253305
                                                                                              108908
                                                                                                                                                                                                                           AF178459
                                                                                                                                                                                                                                                                                                    51,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
AF178459
LOCUS
                                                                                              O
                                                                      2002, 23:24:39; Search time 970.899 Seconds (without alignments) 15087.634 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                       1 gaattcggcacgagattttt......accgcatcctacagaaaagc 700
                                                                                                                                                                                                                  3595312
          5.1.3
Compugen Ltd.
                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                            1797656 seqs, 10463268293 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
           GenCore version
Copyright (c) 1993 - 2002
                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                    sw model
                                                                                                                                                           IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_htg_hum:*
em_htg_inv:*
em_htg_other:*
em_htgo_inv:*
                                                    using
                                                                                                                                                                                                                                     length: 0
length: 2000000000
                                                                                                           US-09-881-556-3
                                                                                                                                                                                                                                                                                                                                                               gb_ov:*
gb_pat:*
gb_ph:*
gb_p1:*
gb_pr:*
gb_ro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_fun:*
em_hum:*
em_in:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                      gb_un: *
gb_vi: *
em_ba: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                em_pat:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_sts:*
                                                                                                                                                                                                                                                                                                                                   gb_htg:*
gb_in:*
gb_om:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_or:*
                                                                         ı,
                                                    nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                              b_8y:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  еш_ош:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_ph:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_pl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_ro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_un:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                em_v1:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_mu:*
                                                                                                                                                                                                                                                                                                                          gb_ba:*
                                                                                                                                                                                                                                                                                                                GenEmbl: *
                                                                         November
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match
```

:0

225... 229... 330... 331...

INV 01-SEP-2000

Location/Qualifiers

FEATURES

Description

<u>B</u>

Length

Score

ġ Result

COMMENT

Plasmodiu Plasmodiu

Sequence Mus muscu Sequence

~

```
Epigenomics AG (DE)
                                                                                                                                                                                                                                            92483 a
                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                   487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                           427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
PFMAL3P3
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                               61 AAAGTCATTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAA 120
                                                                                                                                                                                                 187
                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                    181 TATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTTTA 240
                                                                                                                                                                                                                                                                                      307
                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                367
                                                                                                                                                                                                                                                                                                                                         427
                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                                                                                                                                                                                                              547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                     68 AAAGTCATTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAA 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 667
                                                                                        Gaps
                                                                                                                     67
                                                                                                                                                                                                                                                                                               8 GCACGAGATTTTTTTTTTTTTTTACCTATTTCAATTAGTTTCTTTGATTCAAACGATGC
                                                                                                                                                                                               ATTCGAAATTAAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTT
                                                                                                                                                                                                                                         TATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTTCTA
                                                                                                                                                                                                                                                                                                                               GAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTC
                                                                                                                                                                                                                                                                                                                                                                         TGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACAC
                                                                                                                                                                                                                                                                                                                                                                                    CTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCCTC
                                                                                                                                                                                                                                                                                    TACAAAAACATGTTTTGAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                   428 AAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT
                                                                                       ;
0
                                                                Length 1310;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (sites)
Olek, Piepenbrock, C. and Berlin, K.
Diagnosis of known genetic parameters within the mhc
Patent: WO 0200932-A 25 03-JAN-2002;
                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
             parvum"
                                                                  .,
m
                                                                           .le-93;
                                                                  BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                Score 571.4; E
Pred. No. 9.1e-
0; Mismatches
1. .1310
/organism="Cryptosporidium|
/db_xref="taxon:5807"
1 253 c 206 g 381 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCAGTTGTTAGACCGCATCCTACAGAAAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        349980 bp
Sequence 25 from Patent W00200932.
AX344574
AX344574.1 GI:18492460
                                                               Match 81.6%;
Local Similarity 89.0%;
les 617; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         synthetic construct. synthetic construct artificial sequence.
                                 ø
                                470
                                                                 Query Match
  source
                                                                          Best Loca
Matches
                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
AX344574/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                         188
                                                                                                                                                                                                                                                                                    248
                                                                                                                                                                                                                                                                                                                               308
                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                            488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                           ò
                                                                                                                              셤
                                                                                                                                                                       셤
                                                                                                                                                     õ
                                                                                                                                                                                              å
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
```

```
/note="chemically treated genomic DNA (Homo saptems)-Original length of seq 1: 3 673778 <223>-split as follows.-seq 01 0.000.001 To 0.149.980-seq 02 0.300.001 1.249.980-seq 02 0.300.001 1.249.980-seq 02 0.300.001 1.349.980-seq 04 0.500.001 1.349.980-seq 06 1.500.001 1.349.980-seq 06 1.500.001 1.349.980-seq 07 1.800.001 1.549.980-seq 06 1.500.001 2.449.980-seq 09 2.400.001 2.749.980-seq 10 2.700.001 3.349.980-seq 11 3.000.001 3.349.980-seq 12 3.300.001 3.649.980-seq 13 3.600.001 3.349.980-seq 13 3.600.001 1.249.980-seq 16 600.001 49.980-seq 19 1.500.001 1.249.980-seq 18 1.200.001 1.549.980-seq 22 1.800.001 1.849.980-seq 22 1.800.001 1.549.980-seq 22 1.200.001 1.849.980-seq 22 1.200.001 1.849.980-seq 22 1.200.001 3.349.980-seq 23 2.700.001 3.649.980-seq 25 3.600.001 3.349.980-seq 25 3.300.001 3.649.980-seq 26 3.600.001 3.673.778"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db 274723 AACTAAAACTAAACAAAAATTCTTAAACATAACACAAAAATATATAATCCATAAAATTA 274664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lukaryota: Alveolata; Apicomplexa; Haemosporida; Plasmodium.
1 (bases 1 to 11666)
Bowman,S., Lawson,D., Basham,D., Brown,D., Chillingworth,T., Churcher,C.M., Carag,A., Davies,R.M., Deviin,R., Feltwell,T., Gentles,S., Gwilliam,R., Hamlin,N., Harris,D., Holroyd,S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        307 AGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 349980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.5%; Score 52.4; DB 6; 1
46.6%; Pred. No. 1.1;
iive 0; Mismatches 191;
                                                 construct"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4329 c 79047 g 174121 t
Location/Qualifiers
1. 349980
/organism="synthetic c/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 46.6
Matches 167; Conservative
```

```
gene
                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sause.

The sause.

The sause.

On Aug 31, 2001 this sequence version replaced g1:2894463

G1:2894465 g1:289469 g1:28921 g1:265376 g1:3694952.

G1:2894465 g1:289469 g1:298251 g1:265376 g1:3694952.

For more information about this sequence or the Malaria Project, see http://www.sanger.ac.uk/Projects/P_falciparum. The following numbers may have changed s119htly.

The true left end of clone MY434-3D7 is at 1 in this sequence. The true right end of clone MY434-3D7 is at 14736 in this sequence. The true right end of clone MY434-3D7 is at 114736 in this sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /protein_id="CABII102.1"

Ab_xref="C1:3649753"

Ab_xref="SPTREML:O77318"

/db_xref="SPTREML:O77318"

/translation="WYLLMSKFLVWIIIFGNFFVVHFFLCFKIPNNKITNVLTYDNSK

KRRINSKHPTLYKNDTLMKLLNRKKHTLDFYRKKRKENDIOSESGYLYFPFDHLEKKT

KRPPDPYIPSEDEKESSIDIFHDKINDDLATYEDDDDAKKYEGKTFRNKPNIIGKDE

NSEDDQDDDLNDQNDDPINNPINNLTDNPTNNSIDNPINNSIDNPINNSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="region duplicated in MAL3P2 to include the whole of PFC0235c in one entry, the whole CDS is in MAL3P2 and only the exons are shown in this entry to avoid duplicating the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KRICVSYNMKSHTFKRSISNLSDLIEFSNKLKYVLDERIHKLYYEDKNNENAYLNKTL
RKELEIGKKERDVTNLSKKNLQMSIESSLKLIEKCMQNMYKQNYEITLHDLKLAYNML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The Sanger Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNPTNNSIDNPTNNSIDNPTNNSIDNPTNNSTDNPINSPNYQQVTQSNIILEEENNTN
KTDIEKDIININFYSSEEKKIACEMIKDQIYYLLHSSMDKTFIETFNINIESHIVPSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCKYYGFFLSNLCSTISTLSYYVNDLQGTFNFALKSIKYEPKYNVAWKCLGDAYRSFR
KFWQAKNFYDIAIYLGYKDEKGERFEDIVQELNNLTENALKNVDLLKEHMNNSTNIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KKNIGIVLNKNPDSIGGCYVSYIIEGSKASKKNLHHGDQIVALNNHVTYGKPIDFCLK
AFQKNDGTYDIIFFKGNIIELXGLKAYKYLMKNDLFYALFENEQIVSFKRNETILFDM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="PFC0330w (MAL3P3.2), putative PDZ domain protein, len: 700 ma, Match to PF00595 PDZ, PDZ domain (Also known as DHR or GLGF). Score 20.36, predicted using hexExon"
Hornsby,T., Horrocks,P., Jagels,K., Jassal,B., Kyes,S., McLean,J.,
Moule,S., Mungall,K., Murphy,L., Oliver,K., Quail,M.A.,
Rajandream,M.-A., Rutter,S., Skelton,J., Squares,R., Squares,S.,
Sulston,J.E., Whitehead,S., Woodward,J.R., Newbold,C. and
                                                                                                                                                                                                                                                                                                                                                                                                                         Lawson, D., Bowmen, S. and Barrell, B.
Direct Submission
Submitted (14-AUG-1997) P. falciparum Genome Sequencing Consortium,
                                                                                                                                        Barrell, B.C.
The complete nucleotide sequence of chromosome 3 of Plasmodium
                                                                                                                                                                                                                                                                                                      Mungall,K., Bowman,S., Churcher,C., Lawson,D., Quail,M.,
Rajandream,M.-A. and Barrell,B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'product-"putative PDZ domain protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. 116696 /organism-Plasmodium falciparum" /strain="3D7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="part exon 3 of PFC0235c"
1. .5500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complement(4520, .4587)
/note="exon 2 of PFC0235c"
complement(4804, .4830)
/note="exon 1 of PFC0235c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6740. .8839
/gene="PFC0330w, MAL3P3.2"
6740. .8839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="PFC0330w, MAL3P3.2"
                                                                                                                                                                                                       Nature. 400 (6744), 532-538 (1999)
99376085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:5833"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement(1. .4302)
/partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KGFGTFSEYGMSKAEFV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /chromosome="3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="MAL3P3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                             (bases 1 to 116696)
                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 116696)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein 1d*
                                                                                                                                                                                                                                                                                                                                                                            Unpublished
                                                                                                                           Barrell, B.G
                                                                                                                                                                                       falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mlsc_feature
                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                 MEDLINE
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
```

/gene-"PFC0330w, MAL3P3.2"

```
/note="Match to PF00595 PDZ, PDZ domain (Also known as DHR or GLGF). Score 20.36"
or GLGF). Score 20.36"
complement(join(9589. .16129,16327. .20041,20295. .21213))
/gene="PFC0335c, MAL3P3.3"
complement(join(9589. .16129,16327. .20041,20295. .21213))
/gene="PFC0335c, MAL3P3.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VLKENLKEDANEYNNDKENKNNKTKEILKSKNYLENEKRTLEELKLRGKNNIFKKDEK
YNSLGEVIINEIQINEENKINDIQDGNISKQKIIQSSSRTNDTFNIKDISLNDDLEKE
KRKKKSQHFIDNLVKADKNEISENINKICDNNINNIYDESINNIYDESINNIYDESIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ISSKI IIDLMLEYMNT IISKNNGYVLY FNNYNILLOHLDY FLHKLKGLSTIKY INYVHF
LNINFLKNVNDQKDVNIYDY LLDDQK IIVSNPFKGMFPKFCLILKKHNIVSIHSCKHF
NPQKIYRRLLSKFNDKQIDSSNNVKEEVEEKHSELFAMDKNEEKYKNVKENQEENDHK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KYCDDMEHEKDLSMLIKHLSVLLKDEKENIKNNEGGEESIDNILIDKNMKSDQEYNEN
EKDHLNNIEYIENLSEHLRHKYDIEMIPIDIVGNIRLYKLFYINMIKNNYSYYLKNNF
FPYKYKGKRGKAKKGMLMINIKRKHEYDNLMKKKNGNEKTGNNNKKKNNKEDKNDYIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NDNXIIEGKKKFCVIYKNKIYMLNNHDYMIEFLKHPKFYASKKVKESVCFSLVIYFPN
MDIOKKIILLLETYEKLIHDIGKYFKOYFFLEHODKOUKNNKKSNNNNDDVONKIE
MDIOKHIILEGYTISPLFYRY (CIHMKKHQFNIYIIKEIIKSIIKLKHNPNLLI
MKKKNILINQCEIKKKMKRKKKKKKKIPPEKKLVNNEKKNLLFLFSSIMKIKFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIYDESINNIYDENINNIYDENINNIYDENINNIYDEGINKICDDNILLENKNIKTTND
IVQVEENNESIEKNELMISLNKDINNTYNMFKENVDIFINKIKRESLLKIDKNIKDNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NDDEY IMDNEY ENDFIINHKMEITHKELDPLEINTQNEFIENLDIKKKKYTNDHFFND
ADKMFY EMNKILNKDMKKNKEQEFFKTDETFGSLQSHKIRKYNKGEEKHDKNNEEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SVCSDEYYLSTSSEGKYNYDGEDEQDEQDEQDEQDEQEEEEEDEQEEEDEQEEEDEQEEEDE
EEEDDEDDEDDEEEDDEDDDNDNDDDDEDDNDDDDDDDEYDDHYDKPSDDATQNISI
NINKSIIEEINNYENTHKNDKNKHTDESYYNLANKEINFIXKCTSPDKYYKNYYNNLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ERRDNI LLSVKKSGSTCHTDYNNNEDNEDNENNEDNENNENKENNEDNKARDDSYYVG
ERESRORY I ITGLPLHSKI FFYLKCMNI SIDHVI SFDI IKKEMNKDEENEDKGDGDDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NNSY INVYCPYVLKKHNWLYKSIDNIKLYYDEKVYYLSNLYHAFIFSKNIKYYQHNFN
IPPLRLLFLYDVPYKFNKDIKKNWVRKFFFKYINLEKECIIYIKYVFIYLLKYIFFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 YKYDYKKKTNIDIKNFSINSIPIKNLLEKKY IYYLYREDIIYLENNINQINVYEQNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NKEDSYCNLLOFISIIEQEFQEKRYKNIIYIEYSNLWKMKCKITDDIEEKIKSYQKYN
RYKYNNKPAYFKGYNIYEKANYEQEIQFNNYCLVTYKKKQILLKCNIYDNYTICHNNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YNLIIIKQKNIKNVSFKNVLDKLSHITNIKDMAKDINLLLVLIEDMFFREKRKYLNKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LNDYKKKKYDIKIIPFDEDEKKSIYFYLNEIRKIINPYVHSYYNYNDILKNRICCKQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NRKNKNHVDEY INNYNI NEKDKQDPNKNT SNQNDTY LVTNQIT INSFGYDDDNNSDS I
YSNEYNESSDFTENCFAYNKDNI NLAHLQKMFCKKY EKNILNSKY KFLENNLLNNI OK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLKYAFRVPEYVIYLGCTSPKKLLDRMKKVKNVEQIKNSEHTNHVTNSKGDGRKNPND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ASQEYRNKENQIK I PNIDKKNVDNNDKVEKDNLLDDIKKCSLKNKK I IEYLKKYSNIW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LHVRLNQYDILSHGCILYNIPYNKNQLYFLLHNAKKKKYVPHLIFIIKNHDNKKTNYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KKKKKKYSELQDSNISSNNTLTSKRYTYTCGMDKETKETDEONKRRNTEVASICNVCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIKGSPSRDKEIKKLYTTNKNEDSTFELKKELEIITNNKVNVYEEDIIGSNEDDEYIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nnnnnnnnnndnninvgykrmonninpnnlyeiknnnfnlyhrwslfykycpvsyi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YGDDFYGDEKESGKRNTNFKNLSQYYYNDKMNEEDTYELYKKYVSYNTYNDNIYHMNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HFNEFHIYDLLFQIIKPFNVFLNIIKILTIRYILHEHLONCIITYNTFOHSIFNITDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NSLKYVIQKYRQKKYNKDHSSKQKEDIFKGSNQNELLTNEKDTGEKKQNLIHQDDHLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y IDIEKYHSKSIKMLIEKRLNDILRY RONLYHOLNMKRIDKICAOFLRDNNYIKFSNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YFYCPVDIDNIVDIDTEFLILYNRYLFYFRTLEQINEFVKNPTFYLKQLKPNPSFVLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FIFVY SCIEIENLHNELHKSTKCVVINREHLLSFGNKIKKY EKY IQTNNIDDNILMEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IINNYNDKCITNDMNVKQNVNHNNINSPNDKDNIHMINDEYKKKKYINTSFTLLSKKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation-"MKEKEVDNLFPGDKDVTNLKQYFEGGDIKFENAELKKEREEIRK
NKVF1ECVQNIWMNILNKKMDDKFSKVEYFKIMLRICKVL1PQFDIKEIIKIVNDEWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NDSECKKYLNFSSFFNAFFEL,SDIWTPTINAYDYAHFLKSLFYRITY I EIKTKDCRII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KKKPMIMINFKRTAENKKLSLYNDTNI JEKHVIKEKNKNTLKNLOSFKRSSMQ I ONLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKHFIKRFSENYKLENSFLYDMDDGGDNSLIPKNLFENLLNNKQHNDYLQRNIILMDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NDINPLEHPDEQNQSLNKNKCLTGTNKKEKYMIPKGTEYQDKEKESSILTINQNDKKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VETNEKQRKKTNKKKSVQKDDLVEENALLDNLIIIDGINFDDVTKECKIIDDNNNEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNNIYVENNKLKDOKSYDLFSSECKNLILGVNEGEEFNEEVFENIEKELQERKDEKNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NDKTIYNNNEEQTDDLNRNINKIESINNNNDNNNINNKKEFNKIRTEHILNKESISK
                                                                                                                                                                                                                                                                           /note="PFC0335c, (MAL3P3.3), hypothetical protein, len: 3724 aa, predicted using hexExon"
                                                                                                                                                                                                                                                                                                                                                                                                                                /product-"hypothetical protein, PFC0335c"
/protein_id="CABI1104.1"
/db_xref="GI:364975s"
/db_xref="SPTREMBL:077320"
                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
```

```
FYLVNSYDDVISFEKNPTEYINVDDSSFKKLEQINNFDTYNNNNNNIPLENEGFCLV SLDBGGGFTKGBKSCCIKYDNKYIFDTILKQLKN SKUDEGGFTNNYNDYLLNNQNIFDTILKQLKN SKUDLNYLIYLKTKETSELGKARLYST PPGGLTYPGGLTGLSAIKFLALFFYKENKLFST PLKRTYEQUNGTFLTDCDIPHIQKLKOKFKNNSTNNGOTINTPVNNFTKRDIEKYH
                                                                                                                                                                                      /note="PFC0340w, (MAL3P3.4), putative DNA polymerase delta small subunit, len: 499 aa; Similarity to DNA polymerase delta, small subunits. A.thaliana DNA polymerase delta, small subunit (TR:048520) BLAST Score: 345, sum P(3) = 1.3e-58; 35% in 20% aa overlap, predicted using hexexon"/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db 103099 AGTGAATGTGATATTACAAAATAAAAGAGATAATGATCATAATAATAATAATAT 103158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db 103459 TTAATTAGACAAGAAAATGGTTTGAATATTTGTCAGAAAGTTAATAATAATAATAAAAA 103518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103159 AACAATAATGATGATGATAATAATAATAACAACAATGATGATGATGATAATAATAAT 103218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103219 AACAACAATAATGATGATCATAATAATAATAACAACAATAATGATGATGATAATAATAAC 103278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103279 AACAACAATAATGATGATGATGATAAAAGATCCCACATTAGATGGAGAAACTCGTTCT 103338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="PFC0345w, MAL3P3.5"
/note="PFC0345w, (MAL3P3.5), Hypothetical protein, len:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111 AAAAACATTTCTACTAAATTCGAAATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGG 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171 CTCGGAGGTGATATTTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCA 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTTTAATTA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGCTTGTGTTTTCTATACAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291 CCCTTTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351 CTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATATT -- CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATTCAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 52; DB 3; Length 116696;
Pred. No. 1.6;
0; Mismatches 305; Indels 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="hypothetical protein, PFC0345w"
/protein_id="CAB11106.1"
                                                                                   YINLYDKILYSQTITNKTKQKKIKYT"
                                                                                                       23110. .24606
/gene="PFC0340w, MAL3P3.4"
23110. .24606
/gene="PFC0340w, MAL3P3.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best_Local Similarity 44.69
Matches 247; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         aa "
                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db 103399
                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             å
```

```
Manualia: Eutheria: Rodentia: Sciurognath: Muridae: Buteleostomi;
Mammalia: Eutheria: Rodentia: Sciurognath: Muridae: Murinae: Mus.
El (bases I to 211376)

ML Dipublished
Linguilished
Lin
                                                                                                                                                                                                                                                                           Mus musculus chromosome 3 clone rp23-71e13, complete sequence. AC073883 AC073883.32 GI:18390271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                           GAAATAATGAAGCCACTAAACTCAACAATCCAGAATCAGGTGGGAATAACTTAACTCAG 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         423 AACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAACTCAATCTCCACA 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         543 AAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 211376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="rp23-71e13"
/clone_lib="RPCI Mouse BAC Library 23"
a 41306 c 42611 g 66892 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 7.4%; Score 51.6; D Best Local Similarity 54.1%; Pred. No. 1.7; Matches 105; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref-"taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1. .211376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /chromosome="3
                                                                                                                                                                           Db 103579 AACAAGAACAAGAA 103592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603 ACTAAACTCAACAA 616
                                                                                                                      AACCAAAACACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                              AC073883/c
                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
589
                                                                                                                   649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                        RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

S

```
Unpublished
                                                                                                                                                                                                                                           1852
                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
AB070263/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                ORGANISM
                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                  REFERENCE
                                                                                  AUTHORS
                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
KEYWORDS
                                                                                                                                                     PEATURES
                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                  Submitted (02-JUL-1999) P.falciparum Genome Sequencing Consortium, The Sanger Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 1sh, UK
On Aug 12, 1999 this sequence version replaced g1:5420293.
For more information about this sequence or the Malaria Project, See the Project, Assequence is unfinished and does not necessarily represent the correct sequence. Work on the sequence is un progress and the correct sequence. Work on the sequence is un progress and the release of this data is based on the understanding that the sequence may change as work continues. The sequence may be contaminated with foreign sequence from E.coli, yeast, vector,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAT 01-FEB-2002
                                                HTG 11-AUG-1999
SEQUENCING IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ij
                                                                                                                                 HTG; HTGS_PHASE1.

Malaria parasite P. falciparum.

Plasmodium falciparum falciparum falciparum falciparum falciparum

Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.

I (bases 1 to 78578)

Bowman, S., Churcher, C., Harris, B., Harris, D., Lawson, D., Quall, M. and Barrell, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30359 ATGTTAGAAAAAAAAAAGGATTTTTTGGATTTTTTAAGAAATAAATAAATAAATAAATAAAA 30418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30419 TTTAATCATAATATATATATTT---TTTCATGTTGTATTAATAAATCTGCATCTTCTA 30475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    543 AAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCC 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             363 AATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATTTCCAATT 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACA 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                             phage etc.
Order of segments is not known; 800 n's separate segments.
* NOTE: This is a 'working draft' sequence.
* This record will be updated with the finished sequence as soon as it is available and the accession number will.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 51.6%; Pred. No. 2.7; Conservative 0; Mismatches 130; Indels 3
                                            /ub/B bp DNA linear Plasmodium falciparum chromosome 13 strain 3D7, *** ALOSESS ***, in unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7200 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6928 bp DNA
Sequence 1496 from Patent W00200928.
AX346425
AX346425.1 GI:18494311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30536 ATTGAAAACTATTTATCTGGATTCTGCTTTGAGTA 30570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7899 g 27281 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           603 ACTAAACTCAACAATCCAGAATCAGGTGGGAATA 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism-"Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref-"taxon:5833"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /chromosome="13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /strain="3D7"
                                                                                                                 AL096783.2 GI:5731889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9436 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Sim
Matches 142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
AX346425/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
              RESULT 5
PFMAL13P9
LOCUS
                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  423
                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                  ACCESSION
                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
1 (altes)
Yukuhiro,K., Sezutsu,H., Itoh,M., Shimuzu,K., Nho,S.K., Zhong,B.
and Banno,Y.
Not trivial level of sequence divergence and sequence
rearrangements of mitochondrial genome between the wild mulberry
silkmoth, Bombyx mandarina and its close relative, the domesticated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              אסט 15928 bp DNA circular INV 08-FEB-2002
Bombyx mandarina mitochondrial DNA, complete genome.
AB070263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bombyx mandarina fifth instar larva silkgland mitochondrion DNA. Mitochondrion Bombyx mandarina Mitochondrion Bombyx mandarina Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea; Bombycidae; Bombyx.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1842 ATCTATACTAACATCATTAATACCCAAACAAAAAACATTTTACTTTATAAAAACCTAAAT 4783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4782 AAACATAAAATACCACGTATAAATATCTACTATACTAAAAACAAAAACATAACCAAAAAT 4723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4722 AAAAAATTAAAAAAATAAAATATAACTTTTAAATTTCCTAAATCTATAAT-CAACAATAA 4664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .cs AG (DE.)
Location/Qualifiers
1. .6928
/organism="synthetic construct"
/db_x=ref="texon:32630"
/note_x=ref="construct"
/not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424 ACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCACAAAA 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      544 AAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCA 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304 CTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTA 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                364 ATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   604 CTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 (bases 1 to 15928)
Yukuhiro, K., Sezutsu, H., Itoh, M., Shimizu, K. and Banno, Y.
Direct Submission
                                                                                                                                                                                                                                                                                                the immune system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 6928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 50.8; DB 6; Length 6 Pred. No. 4.8; 0; Mismatches 197; Indels
synthetic construct.
synthetic construct
synthetic construct
synthetic and sequence.
1 (sites)
01ek, A., Piepenbrock, C. and Berlin, K.
Diagnosis of diseases associated with
Patent: WO 0200928-A 1496 03-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AB070263.1 GI:18640048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 7.3%;
Best Local Similarity 47.6%;
Matches 180; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4543 ACCCACACAATTTCTATA 4526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      664 CCTCATCCAGTTGTTAGA 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               silkmoth Bombyx mori
                                                                                                                                                                                                                                                                                                                                                                                                                     Epigenomics AG (DE)
```

```
LGLAMSILSIGEPDIAFFHLLTHSMFKALLFMCAGVIIHMMNDIQDIRYMGGLSLYIP
LTSLCLNISNLSLCGIPFLSGFYSKDLILEMVSFNLSFNLAVFILFYLSTGLTVFYTFR
LIMYVMINDFNLAMIYNLYDEDYIMLNSMFVLLFMSLLSGSFLSWFIFSYPYMIYLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /transl_table=5
/transl_table=5
/evidence=not_experimental
/product="NADH dehydrogenase subunit 4L"
/protein_id="18884644.1"
/db_xref="G1:18844052"
/translation="MLIYDIWFLFIYWFFIGNLIFVSKNKHLLVVLLSLEFIVLSIFF
FFLVLLMFIDYDMYNLMVFLVFSVCEGSLGLSILVSMIRSHGNDXFQSFSML"
                                                                                                     VMSILLIDWMSILFMMEVSLISSVVIFYSKSYMNSELMINRFIILVLMFVFSMVLLIIS
PNLISILLGWDGLGLISYCLVIYYQNLKSYNAGMLTALSNRIGDVMILMYICWYMNYG
SWNYIFYMDFWKNDYVMFVVSFMIIJAAMTKSAQIPFSSWLPAAMAAPTPVSALVHSS
TLVTAGVYLLIRFNYLLIDMFFFKILLFLSILTMFMSGISANYEFDLKKIIALSTLSQ
                                                                                                                                                                                                                                                                                        YLNESQILFKNIDMGWSEIYSGKGIFNILKNYSVFYNVYQMNNFKIYLFSFILMFMIL
FIFFII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="MMKILEMMIFWIPLCFMKNWFWLVQMMLFLAMFLFWNLNLNVWC
FRMSYMFYCDIISFGLILLSIWICSLAIMARSESLFKLNFFFFFRVIFLLIMLYL
TFSYLMLLLFYFFFFSKLIPPLLLIGWGYQDFRIQAMYLFYTLFGSLPLIMGIIY
VFNDLNTWTIYFLKFFNWNWYLLYISMIFAFLVKMPWYFVHLWIDFRAHVBAPVSGSMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAGIMLKLGGYGLLRVMIFLQEVNLKLNYIWIIISLVGGLFISWKCFCQVDMKSLIAY
SVAHWSMYIGGIMINNYWGFLGSYVLMISHGLCSSGMFCLANINYERLHSRSLYINK
GWMNFWPSWSLWWFLLLSSNMAAPPSLNLLGEISLINSLVSWSNISMILLMMISFFSA
GYSLYLYSYIQHGKFYFQGLYSFYVGLSREYLLLFLHWFPLNMLILKVDFISIWF"
COMPLEMENT (4375. .4665)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="01:18640053"
/translation="MKMILSSMLIMMTSIMYFWNHPLSMGMMILMQTWITCMISGMLI
KTYWFSYILFLIFLGGLLVLFIYVSSIASNELFLFNLNMKTLNIIIMMITIIMMYFI
NIKYNNLIENNSEMNKLFTKMLFFNDENKINLNKMYNNQTSFLTMMLIIYLFVNLVAV
                                                                                   /translation="MCFNSLFFLFFFSMNNFFFWVYFIMNGLSVFFEWEIVSFNSMSI
       /product="NADH dehydrogenase subunit 5"
/protein_id="BAB84642.1"
/db_xref="GI:18640050"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
/transl_table=5
/evidence=not_experimental
/product="NADH dehydrogenase subunit 4"
/protein_id="BABB4663.1"
/db_xref="GI:18640051"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /evidence-not_experimental
/product="NADH dehydrogenase subunit 6"
/protein_id="BAB84645.1"
                                                                                                                                                                                                                                                                                                                                                                                      /note="codon recognized: CAC"
/product="tRNA-His"
/anticodon=(pos:2942. .2944,aa:His)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /anticodon=(pos:4701, .4703,aa:Thr)
/evidence=not_experimental
complement(4735, .4802)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /anticodon=(pos:4768. .4770, aa:Pro)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="codon recognized: CCA"
/product="tRNA-Pro"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="codon recognized: ACA"
/product="tRNA-Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /evidence=not_experimental complement(3035. 4375)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="nad4"
complement(3035. .4375)
                                                                                                                                                                                                                                                                                                                                                               complement(2909. .2975)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement(4375. .4665)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'transl_table=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="nad4L"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene-"nad4L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4670. .4735
/gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="nad4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /evidence=not_experimental
/product="NaDH dehydrogenase subunit 3"
/protein_id="BaB84641.1"
/db_xref="GI:18640049"
/translation="MIMLITIFFFILSNIAWAMSMILSKKSFMDREKCSFFECGFDP
KSMSRIPFSLHFFLITIFLIFDVETALIFPIIMLFKMVNMLTWIKTSFFFIIILLIG
LYHENNQNMLNWTN"
Submitted (17-AUG-2001) Kenji Yukuhiro, National Institute of Agrobiological Sciences, Insect Genetics and Evolution Department; Oowashil-2, Tsukuba, Ibaraki 305-8634, Japan (E-mail:kygnis@affrc.0.jp, Tel:81-298-38-6202, Fax:81-298-38-6202) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="codon recognized: AGC; codon recognized:AGN"
                                                                                                                          1. .15928
/organism="Bombyx mandarina"
/organisle="mitochondrion"
/db_xref="taxon.7092"
/tissue_type="silkgland"
/dev_stage="fifth instar larva"
/country="Japan:Ibaraki, Tsukuba"
243. .308
/gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /anticodon=(pos:1067. 1069,aa:Glu)
/evidence=not_experimental
complement(1101. .1167)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /anticodon=(pos:1132. .1134, aa:Phe)
                                                                                                                                                                                                                                                                                                                                                                                                      /anticodon=(pos:273. .275,aa:Gly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="tRNA-Ala"
/anticodon=(pos:744, .746,aa:Ala)
/evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /anticodon=(pos:987. .989,aa:Ser)/evidence-not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /anticodon=(pos:859. .861,aa:Arg)
/evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /anticodon=(pos:925. .927,aa:Asn)
                                                                                                                                                                                                                                                                                                                                                          /note="codon recognized: GGA"
/product="tRNA-Gly"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       716. .779
/gene="cox3"
/note="codon recognized: GCA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="codon recognized: GAA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="codon recognized: UUC"
/product="tRNA-Phe"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="codon recognized: CGA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="codon recognized: AAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /evidence=not_experimental
complement(1172. .2890)
/gene="nad5"
                                                                                                                                                                                                                                                                                                                                                                                                                           /evidence-not_experimental 312. .662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(1172. .2890)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product-"tRNA-Asn"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product-"tRNA-Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product="tRNA-Glu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="tRNA-Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           312. .662
/gene="nad3"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /transl_table=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/transl_table=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="nad3"
312. .662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         830. .893
/gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="nad5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1027
     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
```

```
The RPCI-11 human BAC library was made from the blood of one male donor, as described by Oscagawa, K., Woon, P.Y., Zhao, B., Frengen, E., Tateno, M., Catanese, J.J. and de Jong, P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pleter de Jong and coworkers at the Roswell Park Cancer Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The clone sequenced to the left is RPI1-314B1, 2000 bp overlap; the clone sequenced to the right is RPI1-86017. Actual start of this clone is at base position 161288 of RPI1-314B1; actual end is at base position 168698 of RPI1-813K12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (09-JAN-2002) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA On Sep 18, 2001 this sequence version replaced gi:15148349.
                                                                                                                                                                                                                                                                                            Waterston, R. H.
Direct Submission
Submitted (28-APR-2000) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (18-SEP-2001) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (1.c., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTICE: This sequence may not represent the entire insert of this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MAPPING INFORMATION:
Mapping information for this clone was provided by Dr. John D.
Mapping information of Genetics, Washington University, St. L.
MO. For additional information about the map position of this sequence, see http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Data from AC069383 was used to finish this clone, AC068138.An
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence was finished as follows unless otherwise noted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center: Washington University Genome Sequencing Center
Center code: WUGSC
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 168698)
Sulston,J. E. and Waterston,R.
Toward a complete human genome sequence
Genome Res. 8 (11), 1097-1108 (1998)
                                                                                                                                                                                       Isak,A., Kozlowicz,A., Doebber,A. and Dixon,R.
The sequence of Homo sapiens BAC clone RP11-813K12
Upublished (2001)
(bases 1 to 168698)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://genome.wustl.edu/gsc
Contact: sapiens@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center project name: H_NH0813K12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NEIGHBORING SEQUENCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (http://bacpac.med.buffalo.edu)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---- Genome Center
                                                                                                                                                                (bases 1 to 168698)
                                                                                                                                                                                                                                                                                                                                                                                                                                 4 (bases 1 to 168698)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 168698)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                          MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MO 63108,
                                                                                                           JOURNAL
MEDLINE
REFERENCE
                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                            JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear PRI 09-JAN-2002 complete sequence.
                                                                                                                                                                                                                                                                                                                                                     GIYYESFNLKYVWLIGIMILFMLMATAFMGYVLPWGQMSFWGATVITNLLSAIPYLGT
MLVNWIWGGFAVDNATLTRFYTFHFLLPFIILMLTMIHLLFLHQTGSNNPLGLNSNLD
KIPFHPFFTFKDLIGFIILIKMLTLLTLINPYLLGDPDNFTPANPLVTPVHIQPEWYF
                                                                                                                                                                                                                                                                                                                                                                                                                        LFAYAILRSIPNKLGGVIALIMSIMILIILPFTFKKKIGGIGFYPINGIIFWHFLMIT
ILLTWIGARPVENPYIITGGLLTIMYFLYFFLNPIIGMYWDKILFNKKKNN"
6548. .6613
                                                                                                                                                                                                                                                                                               /translation="mffKSIRKTHPIIKIINNSLIDLPSPSNISSWWNMGSLLALCLM
IQIITGLFLTMYYTANIEMAFYSVNYICRNVNYGWMIRTLHANGASFFFICIYLHIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10373 AGAAAAAAATAAGAGAAATATTAAAAATTTAATTTATATTAATTAATTAATCAATCAATA 10314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10253 TTGATTTATTTAATAAAAAATATTAAATTAAATTTAAATTAAATTAATTAATAATTAATCAA 10194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTCTAATTCTGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATTT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="codon recognized: UCA; codon recognized:UCN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 15928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.3%; Score 5v.v.,
48.0%; Pred. No. 4.1;
1ve 0; Mismatches 157; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /evldence-not_experimental
/product="NADH dehydrogenase subunit 1"
/protein_id="BAB84647.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /anticodon=(pos:6578. .6580, aa:Ser)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC068138 168698 bp DNA HOMO Saplens BAC clone RP11-813K12 from 2,
                                                                                                                                                                                            /evidence-not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /evidence-not_experimental
                                                                                                                                                                                                                                         /protein_id="BAB84646.1"
/db_xref="GI:18640054"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(6639. .7583)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(6639. .7583)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              168698 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product-"tRNA-Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /transl_table=5
                                                                                                                                                             'transl_table=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC068138.6 GI:15638958
                                                                                                                                       /codon_start-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6548. .6613
/gene="cox3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="nad1"
                               .391. .6548
'gene="cob"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene-"nadl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC068138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CA 10132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10133
                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
AC068138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Locus
```

g õ

ò 윱 ò g ò g ð

Louis

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
unresolved di-trinucleotide repeat exists between 52436 and 52756.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2780. .2806

137. .3834

137. .3834

/rpt_family="ERVL"

5819. .5932

/rpt_family="MER1_type"

6798. .6956

/rpt_family="L1"

6836. .6854
                                /organism="Homo sapiens'
/db_xref="taxon:9606"
/chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /rpt_family="Li"
9472. 9509
/rpt_family="(GGAA)n"
13377. 13683
/rpt_family="Alu"
14013. 14059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /rrt_family="Malk"
14503. 14691
/rpt_family="Malk"
14969. 14988
1577. 15254
                                                                                      /clone_llb="RPCI-11"
747. 778
/rpt_family="AT_rich"
                                                                                                                           984. .. 1004
/rpt_family="AT_rich"
1502. .1591
                                                                                                                                                       .502. .1591
'rpt_family="GA-rich"
.689. .1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7644. .17681
rpt_family="AT_rich"
7683. .17812
                                                                             /clone="RP11-813K12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rpt_family="A-rich"
1327, .laino
                                                                                                                                                                                               2078. .2122

2425. .2552

2754. .2552

7rpt_family="L2"

2578. .2783

27rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rpt_family="MIR"
5905. .1600
                                                                                                                                                                                                                                                                                                                                                        6836. 6854
/rpt_family="Li"
6855. 6939
/rpt_family="Li"
6940. 7021
/rpt_family="Li"
7080. 7132
                                                                                                                                                                                                                                                                                                                                                                                                                                       rpt_family="L1"
133. 7366
'rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /818. .7904
/rpt_family="L1"
/908. .8117
                                                                                                                                                                                   rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .14408
                                                                                                      repeat_region
                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                            repeat_region
                                                                                                                                                 repeat_region
                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
           FEATURES
```

```
;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75 TTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGAA 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           255 ACATGITITGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       315 ATGACTITIGGITCIGAGAAGACTIAGCGACAACTCTCCAATCTTCTAATTCTGAATAT 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15 ATTTTTTTTTTTTTACCTATTTCAATTAGTTTCTTTGATTCAAACGATGCAAAGTCA 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195 GATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   135 ATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 168698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 50.6; DB 9; Length 1 Pred. No. 2.7; 0; Mismatches 284; Indels
                                                                                                                                                                                                                                                                                                   /rpt_family="L1"
23804 .25580
/rpt_family="L1"
24621
/rpt_family="(TTTTG)n"
25594 .27618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /rpt_family="AT_rich"
31693. .31944
/rpt_family="L1"
32147. .32179
                                                                                                                                                                         /rpt_family="MalR"
21965. .22600
/rpt_family="AcHobo"
22652. .22941
/rpt_family="AcHobo"
22977. .23195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="MaLR"
33036. .3321
/rpt_family="MaLR"
33325. .33364
/rpt_family="(CA)n"
33443. .33597
/rpt_family="MaLR"
                                                                                                                                                                                                                                                               /rpt_family="AcHobo"
13455. .23809
18289. .18521
/rpt_family="L1"
1869. .1870
/rpt_family="L1"
19660. .19723
/rpt_family="L2"
20149. .20450
/rpt_family="Alu"
20428. .20450
/rpt_family="Alu"
20428. .20450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="(TG)n" (2463, .3262)
                                                                                                                                                                                                                                                                                                                                                                                               /rpt_family="L1"
27625. .27704
/rpt_family="L1"
28570. .28691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             pt_family-"L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 7.2%;
Best Local Similarity 44.9%;
Matches 233; Conservative
      repeat_region
                                   repeat_region
                                                                  repeat_region
                                                                                               repeat_region
                                                                                                                              repeat_region
                                                                                                                                                             repeat_region
                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
```

= ----- σ

```
CB10 1SA, UK
                  Best Local Similarity
Matches 72; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           supplestons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pseudogene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
PFMAL3P8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                               qq
                                                                                                                                                                            ò
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L SUBMITTER (06-SEP-2000) Genoscope - Centre National de Sequencage, 2 rue Gaston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (E-mail: seqrefégenoscope.cns.fr. Web: www.genoscope.cns.fr.)
This STS is part of a random genomic sequencing program of thirteen yeast species: Saccharomyces bayanus var. uvarum, Saccharomyces ciquus, Saccharomyces servazzil. Zygosaccharomyces rouxil, Saccharomyces kluyveromyces thermotolerans, Kluyveromyces is accharomyces rouxil, Ruyveromyces thermotolerans, Kluyveromyces lactis var. lactis, Kluyveromyces marxianus var. marxianus, Pichia angusta, Debaryomyces hansenii, Pichia sorbitophila, Candida tropicalis and Yarromia lipolytica. Genomic Inserts of 3 to 5 kb were prepared and both extremities were sequenced. See keywords for description of this sequence and for the sequence of the other extremity of this insert.
                                                                                                                                                                                                                                                                                                                                                                          CNSOGEHA 263 bp DNA linear STS 10-JAN-2001 T3 end of clone AROAA021E11 of library AROAA from strain CBS 732 of Zygosaccharomyces rouxii, sequence tagged site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes; Saccharomycetales; Saccharomycetaceae; Zygosaccharomyces. I (basea I to 26)
de Montigny, J., Straub, M., Potler, S., Tekaia, F., Dujon, B., Wincker, P., Artiguenave, F. and Souciet, J. Genomic Exploration of the Hemiascomycetous Yeasts: 8.
Zygosaccharomyces rouxii(1)
FEBS Lett. 487 (1), 52-55 (2000)
                                                                 97809 ATATATAATATATTTAATGTATAATATATTTAATATATATATATATATATATTTGATGTATAA 97868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (bases 1 to 263)
Soucht, J.L., Adgle, M., Artiquenave, F., Blandin, G.,
Bolotin-Fukuhara, M., Bon, E., Brottler, P., Casaregola, S.,
de-Montigny, J., Dujon, B., Durrens, P., Lepingle, A., Llorente, B.,
Malpertuy, A., Neuveglise, C., Ozier-Kalogeropoulos, O., Potier, S.,
Saurin, W., Tekala, F., Toffano-Nioche, C., Wesolowski-Louvel, M.,
Wincker, P. and Welssenbach, J.
Genomic Exploration of the Hemiascomycetous Yeasts: 1. A set of yeast species for molecular evolution studies(1) FEBS Lett. 487 (1), 3-12 (2000)
                                       375 TATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAA 434
                                                                                                                               435 ATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGG 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .263
/organism="Zygosaccharomyces rouxii"
/strain="CBS 732"
/db_xref="taxon:4956"
/clone="ARAA011E11"
/clone_lib="ARGAA"
                                                                                                                                                                                                                                                 DD 97869 TATATTAATATATATTGATGTATAATATATTAATAT 97907
                                                                                                                                                                                                                     495 AGTATTATCGATGGATTTTCTTCTTCTTTAATTAAACAT 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zygosaccharomyces rouxii.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sygosaccharomyces roux11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL395108.1 GI:12146479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 263)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11152876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                   CNS06EHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
g
                                                                                                                                                                         g
                                                                                   윱
                                                                                                                                                                                                                     ò
                                            à
                                                                                                                               ò
```

```
Plasmodium falciparum MAL3P8, complete sequence.
AL034560 AL009568 AL010134 AL010151 AL010159 AL010171 AL010188
AL010209 AL021886 AL0101887 297346
AL034560.3 GI:4725993
HTG; alpha-Noteta hydrolase; guanine nucleotide-binding protein; long-chain-fatty-acid-CoA 11gase; R-FA3; repl1; rep20; rifin; serine/threonine protein kinase; atevor; telomere: R-CG7; var; varC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bowman, S., Churcher, C., Lawson, D., Quail, M. and Barrell, B.
Unpublished
3 (bases 1 to 108908)
Lawson, D., Bowman, S., Rajandream, M.A. and Barrell, B.
Direct Submission
Submitted (17-DEC-1998) P. falciparum Genome Sequencing Consortium,
The Sanger Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Linear INV 17-MAR-2000
                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 On May 14, 2001 this sequence version replaced g1:2982528 g1:2982550 g1:2982551 g1:2894587 g1:2894587 g1:2894587 g1:2982557 g1:2982557 g1:2982557 g1:298257 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmodium falciparum
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.

1 (basea 1 to 108908)

Bowman, S., Lawson, D., Basham, D., Brown, D., Chillingworth, T., Churcher, C.M., Craig, A., Davies, R.M., Devlin, K., Feltwell, T., Gentles, S., Gwilliam, R., Hamlin, N., Harris, D., Holroyd, S., Hornsby, T., Horrocks, P., Jagels, K., Jassal, B., Kyes, S., McLean, J., Moule, S., Mungall, K., Murphy, L., Oliver, K., Quall, M.A., Rajandream, M.-A., Rutter, S., Skelton, J., Squares, R., Squares, S., Shelton, J., E., Whitehead, S., Woodward, J.R., Newbold, C. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \ensuremath{\mathsf{Barrel1}}\xspace, Barrell, B.G. The complete nucleotide sequence of chromosome 3 of Plasmodlum
                                                                                                                                                                                                                                                                                                                                                                                                                                     579 TATTCAAATGAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGGGGAATAA 638
                                                                                                                                                                                                                     519 TCTTTAATTAAACATGCGCCTATAAAAGAAATGGCCACTTGAATAATCAAGAATCAAAA 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                   ö
Length 263;
                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .108908
/organism="Plasmodium falciparum"
/strain="3D7"
           DB 11;
                                                                                                          54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
     7.2%; Score 50.4; D
50.0%; Pred. No. 11;
:ive 18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  falciparum
Nature 400 (6744), 532-538 (1999)
99376085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108908 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          malaria parasite P. falciparum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref-"taxon:5833"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     639 CTTAACTCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          135 AATAAAAARAAAAAAAAAAAA 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="PFTelo"
4530. .6818
/note="R-CG7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /chromosome="3"
/clone="MAL3P8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 108908)
                                                                                                                     Conservative
```

gene

CDS

```
VGWTNYTOTALOKGIEAGYKAGIEELKGFGGLRKLIKVSQIOSFINPANYAEETTYF
PRIQVETRATKCVKEHTFCYSTYISKENALSORASEIAKNAADMAKLAEREVLDKAAP
VTSGINNTAITASIVALLVYLVUNIITYLFLKYRKNKKKKKLQYIKLLEE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IKSRLLAQTQIHNPHYHNDPELKEIINKMNEBAIKKYOOTHDPYEQLKEVVERNGTYY
SGGNDAPPISTLEKELLETYEEIFGHRSDMIKSGMSPNVDEKSSTFECTDINGVKLAK
FKRDKYLKHLKGRCTRGIYFCSLGSVILITYIGTTAAKGAAISTAGAGSKNCIYAISI
FHMLNHKSMSSALTAGTVGAADYASGATSASAIFLPCGIAALVLIILTVLLIILTYI
WLYRRKRSWKHECKKHLCK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CECELYMHNYDNOPEMKRYMQOPHDRTORFORTERINGERROYCOPTORREEKILL
CECELYMHNYDNOPEMKRYMQOPHDRTORFORTERINGERROYCOPTORREEKILL
GENEBELLINEKRATLQTDIHSDALPTGICKTSAADDKVEKTCLKCTOMLGGIVARSSGY
LAGISEGALYAMKPNALQTATEAALKAADDILUGGIBGKKVVIGGLDALEIEKLGI
GSWEPFTEGYCINYKSLASIIYEKROTLGARKSTLDKAATCEDIGISGTAMDHGTY
GAPGTTPIEVLNGYVEGTKERADVAAEAARESATNAIKVOETRLLEAGFNSSISSIN
ASITAIVVIILIMVIIYPILRYRKKKKKKKKKKKKOYIKLUE
join (61248 . 61301, 61548 . 62459)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            join (61248. .61301,61548. .62459)
/gene="PFC0040w,MAL3P8.7"
/fote="PFC0040w,MAL3P8.7"
/fote="PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /protein_id="Cab39119.1"
| Dackein_id="Cab39119.1"
| Dackei="G1:44848024"
| Ab. xref="SPTRBME1:097327"
| Aranslation="MRITIKMKVHYINILLLALSLNILANTHOKPSSTPRHIQTTRLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement(join(48956. .49777,49881. .49949))
/gene="PFC0025c, MAL3P8.4"
/gene="PFC0025c, MAL3P8.4"
/note="PFC0025c (MAL3P8.4"
/note="PFC0025c (MAL3P8.4), stevor (3D7-stevorT3-1), len: 296 as; Simlarity to other P.falciparum stevors. Member of a multi-gene family; predicted using hexExon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /translation="MKMYYLKMLLFTFLINTLILPHYENYLNNDYNVSFIQNNTKRTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(101n(52066. .53076,53192. .53260))
/gene="PFC0030c, MAL3P8.5"
complement(101n(52066. .53076,53192. .53260))
/gene="PFC0030c, MAL3P8.5"
/note="PFC0030c (MAL3P8.5), rifin, (3D7-rifi3-2), len: aa; Similarity to other P.falciparum rifins. Member of multi-gene family; predicted using hexexon"
                                                                                                                                                                                                                                                                                                                                               /note="PFC0015c varC pseudogene"
                                                                                                                                                                                                                                           complement(46448. .47828)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /proteIn_id="CAB39117.1"
/db_xref="G1:4494022"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /protein_id="CAB39120.1"
/db_xref="GI:4494025"
                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /psendo
                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIKOSLIKATIFERARA MENGALITEANING ELA TUWIT UNTILADVICILAALIEGOSIR
GDHDKYKETNDS GOLCTMLARSPADIGDIIRGKDLYRGNING EVENGJILAADVICLAALIEGOSIR
GDHDKYKETNDS SOLCTMLARSPADIGDIIRGKDLYRGNINGKKLEEDILKTIFGKIHE
GDHDKYKETNDS SOLCTMLARSPADIGDIIRGKDLYRGNINGKKLEEDILKTIFGKIHE
GLKRAKTROTEERY GONDPDFPQLEDWWTARTWRAIRCSAPRADYFETKTUCSGG
KTPTOGKOR OID FSOTT YED TYPEY THE WARTETWIKA IRCSAPRADYFETKTUCSGG
KKILYCOLNGFDCTQTARGKNKY Y EHDCIECY SSCOHFYHMIDNGKKEEPKÖNKYNKYDK
EIKKAYGKNGTTTFRETSING FYNNY VOLDCIECH SEKONFYDKEEKKHNDEALICKKHPE
VERKTDYNENBLIDDIFSHITKVOLOCYPLGCENDSPRWRYEEKYNDOKKEEPKONYOKKP
VORMEIIKLLVKDGGGTWYEKLGGLGGNGAKKNNIQEKTWKCYYDKNKENDSIGGGDKOY
VOKMEIIKKLYKDRGGGTWYEKLGGLGGNGAKKNNIQEKTWKCYYDKNKENDSIGGGDKOY
VOKMEIIKKNOYDETYSFNSLEWWYTEMLKOSIDWRENYOLDLSKROPENDOV
EEEKAKDNYDGTVOTORGENDDDDANDDBITPRDLAIEDDDU
NOKMEIIKNOYDEN SPROAGEVDDEDDDANDDBITPRDLAIEDDU
SEEKAKDNYOTOPORGENDDDDANDDBITPRDLAIEDNYOTOPORGAEGO
VOKMEIIKNOYDET STENGYNOYDEN SONGYNYOTORGENDOY
EEEKAKDNYOTOPORGENDON STRYFLOOPENDANDDLANDLAS FROM TALN
BACKOYOYGK EKRPPWKOYDTRGSGEPTGSSGSICVPPRRRRLYYPPLTRLAGGGN
VOKMEIIKNOYDET VOTORGSGEPTGSSGSICVPPRRRRLYYPPLTRLAGGGN
VOKMEIIKNOYDET VOTORGSGEPTGSSGSICVPPRRRRLYYPPLTRLAGGGN
VOKMEIIKNOYDET VOTORGSGEPTGSSGSICVPPRRRRLYYPPLTRLAGGGN
VOKMEILLESONNNN WAYNOYDEN SONDNOYTER SONDLAS FROM THE NOTORGYNYOY

TAASGGSGEAAQPYTVOPORAGGRYOVON WAS PEGENDON TRENDWINGTY TE SONDNA WENENANING WOTORGSGENOY

TAASGGSGEAAQPYTVOPORAGGRYOVON WAS PEGENDON WENT THE NOTORGYNYOY

TAASGGSGEAAQPYTVOPORAGGRYOVON WAS PEGENDON WENT THE NOTORGYNYOY

TAASGGSGEAAQPYTVOPORAGGRYOVON WAS PEGENDON WENT THE NOTORGYNYON WAS STAND WAS TRENDWINGTON WAS STAND WAS TRENDWINGTON WAS TRENDWIND WAS TRENDWINGTON WAS TRENDWINGTON WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENTRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND WAS TRENDWIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /professionalde="Caba39115.2"
/db_xref="G1:7264037"
/db_xref="SPTREMBL:097324"
/translation="WRFLDPPEELROIEDFTAKHIFDRIGKIVHEKAKKNAEGYRSO
LKGSLLKATFERAPAGQQTFGNTCELKYQWHTNVTKGGNKEYPCRNGTERRFSEVSGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PNTPSDIPKTPSDTPPPTTDDEWNTLKDEFISOYLOSEOPNDVPNDYKSGNSSTNTNI
TTTSRHNVEEKPFIMSIHDRDLYTGEEYNYDMSNNSGIYPSSSNRDSLSGTKVPYSGI
DLINDSLNSGNQPIDIYDBILKRKENELFGTNHVKQTSIHSVAKLTNSDPIHNQLELF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="MKIHYINILLFELPLNILIYNQRNHYITRPRATTRTLCECELY
APSNYDSDPEMKRVMQQFVDRTTQRFHEYDERMKTTRQKCKEQCDKEIQKIILKDKLE
KQMAQQLTTLDPNITTEDIPTCICEKSLADKTEKFCLNCGKTMGGVAPGWGLVSGLGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HKWLDRHRDMCEKLKNDNERLAKLKEEWENETHSGNIHTSDSNKTLNTDVSIQIDMDD
                                                                                                                                                                                    join(3364]. .38959,39848. .41158)

Agene="PRC0065w, MAL3P8.1"

Join(33641. .38959,39648. .41158)

/gene="PFC0005w, MAL3P8.1", var gene (3D7-varn3-1), len:
2209 aa; Similarity to P.falciparum PfEWP-1 gene. Part of amulti-gene family, donor sequence corrected"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GKPKKEFTNMDTILEDLDKYNEPYYDVQDDIYYDVNDHDVSTVDSNAMDIPSKVQIEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement(join(43045. .43971,44202. .44255))
/gene="PFC0010c, MAL3P8.2"
complement(join(43045. .43971,44202. .44255))
/gene="PFC0010c, MAL3P8.2"
/note="PFC0010c, MAL3P8.2", rifin (3D7-riff3-1), len: 326
aa; Similarity to other P.falciparum rifins. Member of a
multi-gene family; predicted using hexExon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           38960. .38965
/gene="PFC0005w, MAL3P8.1"
/note="corrected splice donor for PFC0005c"
/note="R-FA3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            db_xref="SPTREMBL:097325"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /protein_id="CAB39116.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'db_xref="GI:4494021"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DVNTKLVKEKYPIADVWDI"
repeat_region
                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
```

gene

CDS

Length 349980

```
7.28;
Similarity 46.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85192
                                      Matches 163;
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
AX344563/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                    g
                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:3560"
/db_yellows. -seq 01 0.000:001 0.349.980-seq 02 0.300.001
/1.249.980-seq 03 1.200.001 2.449.980-seq 04 900.001
/2.449.980-seq 05 1.200.001 2.449.980-seq 06 2.100.001
/2.449.980-seq 07 1.3000.001 2.749.980-seq 10 2.700.001
/2.449.980-seq 11 3.000.001 3.349.980-seq 10 2.700.001
/de seq 2: 3.573.778 <223>-Original length of seq 2: 3.500.001 1.249.980-seq 18 1.200.001
/2.149.980-seq 19 1.500.001 1.849.980-seq 20 1.800.001
/2.149.980-seq 21 2.100.001 2.449.980-seq 22 2.400.001
/2.149.980-seq 25 3.300.001 3.649.980-seq 26 3.600.001
//de seq 25 3.778*
                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-2002
                                                                                                                              39365 TATATATCATAAAAAAAAAAAAGAAAATTTTTAAAATAATGAAAATTA 39424
                                                                                                                                                                                                                                                                                                                                    490
                                                                                                                                                                                                                                                                                                                                                                                          TTGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGGGCCTATAAAAGAAAA 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACT 610
                                                                                                                                                                   311 TAAAATGACTTTTGGTTCTGAGAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGA 370
                                                                                          251 AAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAA 310
                                                         Gaps
                                                                                                                                                                                                                                        371 ATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAA
                                                                                                                                                                                                                                                                                                                   TAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAATTGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olek, A., Piepenbrock, C. and Berlin, K. Diagnosis of known genetic parameters within the mhc Patent: WO 0200932-A 3 03-JAN-2002;
                 Score 50.4; DB 3; Length 1 Pred. No. 3.2; 0; Mismatches 226; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear

    .349980
    /organism="synthetic construct"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5170 c 78360 g 166369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX344552 349980 bp
Sequence 3 from Patent WO0200932.
AX344552 AX344552.1 GI:18492438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualiflers
                 Query Match 7.2%;
Best Local Similarity 45.1%;
Matches 186; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   synthetic construct artificial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Epigenomics AG (DE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100081 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
AX344552/C
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                          491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                   431
                                                                                                                                                                                                                                                                                                                                                      39425
                                                                                                                                                                                                                                                                                                                                                                                                                             39485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                            셤
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                   ð
                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                   õ
```

```
1. 349980

// Corganism="synthetic construct"
// Ab_xref="twon:32630"
// Ab_yref="twon:32630"
// Ab_yr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-FEB-2002
                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db 107243 ATAAAACTTTTATACACATTACAATATTTTAAAAACACATATATTAATACTTTAATACATATA 107184
                                                                                                                                                                                                                                                                                                                                                                                                                430 ATAAAATCTCCACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGAT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 311 TAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGA 370
                                                                                                                                                                                 ATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTG 369
                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            550 ATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATGAAATGAAGCCACTAAAC
                                                                                                                                                                                                                                                                                                                                                                  AATATTATCTTTTCCTTACATGCAATAACTGCATTCTTGGATATTTCCAATTAACACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107123 CAAAATAATAATACCGAATATATAACACAACTACAAACACCTCATAACAACTAACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490 ATTGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 349980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              synthetic construct.
synthetic construct
synthetic construct
1 (sites)
Olek,A., Plepenbrock,C. and Berlin,K.
Diagnosis of known genetic parameters within the mhc
Patent: WO 0200932-A 14 03-JAN-2002;
Epigenomics AG (DE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        173;
Score 50.2; DB 6;
Pred. No. 2.8;
0; Mismatches 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
7.2%; Score 50.2; DE
Best Local Similarity 50.1%; Pred. No. 2.8;
Matches 178; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85605 g 172825 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 14 from Patent W00200932.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX344563.1 GI:18492449
                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

610

```
1776 ITTAATTAATAATTATTATTTTTTTTCTTCTTCATAAAAAT---ATAATAAAACTAAA 1720
    TIGGAGTATTATCGATGGATTTTCTTCTTCTTTAATTAAACATGGGCCTATAAAAGAAA
                             TAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATTCCCACAATTGGATA
                                                                                                                                 TGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACT
                                                                                                                                                                                                                                                                                                              AX281283.1 GI:16608538
                                                                                                                                                                                                                                                                                                                                      synthetic construct.
synthetic construct
artificial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 48.9
Matches 133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
                             431
                                                                                                                                                                                                                                                 RESULT 14
AX281283/c
                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX344573/c
LOCUS
                                                                              491
                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
                                                                                                                                 551
                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                     ద
                                                                                                      셤
                                                                                                                                                         g
                                                                                                                                 à
                                                                                                                                                                                  ò
                                                                                                                                                                                                        g
                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAT 01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
DD 301955 TATAATTACTTCTATAAATAATAATATTTCTTCACAATTTTACATTAAATTACATC 301896
                                                         D 301776 TITAATTAATAATTATTTATTTTTTTTTTTCTTCTTAAAAAT---ATAATAAAACTAAA 301720
                                                                                                                                                                                                                    Db 301719 CGCACAACTAAAATTTAAAAAATCAACTAAACATAATAACTCATAATCATAATCC 301660
                                                                                                                TAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCCAAATCTCCACAATTGGATA 490
                                                                                                                                         491 TTGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAAGAAAA 550
                                                                                                                                                                                         551 TGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACT 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAAATTAACACAAA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCCAATCTTCTAATTCTGA 370
                                                                                                                                                                                                                                                          DB 301659 CAACACTITAAAAAACTAAAACGAATAAATCATCTAAAAATCAATAAAATAAAAACC 301605
                                      ATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCTAACACAAA
                                                                                                                                                                                                                                          Qy 611 CAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCC 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 349980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (sites)
Olek,A., Piepenbrock,C. and Berlin,K.
Diagnosis of known genetic parameters within the mhc
Patent: WO 0200932-A 15 03-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 others
                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 50.2; DB 6;
Pred. No. 2.8;
0; Mismatches 173;
                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3868 c 72947 g 173548 t
                                                                                                                                                                                                                                                                                                                      AX344564 349980 bp
Sequence 15 from Patent WO0200932.
AX344564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Epigenomics AG (DE)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                        AX344564.1 GI:18492450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.2%;
ilarity 50.1%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                synthetic construct. synthetic construct artificial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simi
Matches 178;
                                                                                                                                                                                                                                                                                                          RESULT 13
AX344564/C
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                      371
                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  371
                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                             g
                                                                                        ð
                                                                                                                                          ð
                                                                                                                                                                                            ð
                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
```

```
02-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAT 01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11047 CTAAACTTAATAATACCCTTTTATACAACTACGTATTTTAACATATACCATAAACTTTA 10988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10987 ATTTTAATTTTCCAAAAAATCACGTAAAACCAATATCCTCATTTAAAAATAAAAATC 10928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .11670.
/organism="synthetic construct"
/db.xref="taxon:32630"
/note="chanically treated genomic DNA (Homo sapiens)"
a 238 c 2377 g 5768 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              395 TAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGA 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               455 AAGTTCCGGAGAAACTCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             515 ITCTICTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATC
                                                                   575 AAAATATTCAAAATGAAATAAATGAAGCCACTAAAACTCAAAAATCCAGAATCAGGTGGGA
                                                                                                                                                                                          PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 11670;
                                          611 CAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCC
                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                        altrices)
Olek, A., Piepenbrock, C. and Berlin, K.
Diagnosis of diseases associated with apoptosis
Patent: WO 0177164-A 25 18-OCT-2001;
Epigenomics AG (DE)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.1%; Score 49.6; DB 6; 48.9%; Pred. No. 7.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     635 ATAACTTAACTCAGAACCAAAACACAAAGCCT 666
                                                                                                                                                                         AX281283 11670 bp
Sequence 25 from Patent WO0177164.
AX281283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX344573 349980 bp
Sequence 24 from Patent WO0200932.
AX344573.1 GI:18492459
```

```
1. 349980

/organism="synthetic construct"
/db_aref="taxon:32630"
/organism="synthetic construct"
/db_aref="taxon:32630"
/note="chemically treated genomic DNA (Homo sapiens)-Original length of seq 1: 3.673778 <223>-split as follows.seq 01 0.000.001 TO 0.349.980-seq 02 0.300.001
649.980-seq 03 60.001 949.980-seq 04 900.001
1.849.980-seq 07 1:800.001 1.549.980-seq 06 1.500.001
1.849.980-seq 07 1:800.001 2.749.980-seq 10 2.700.001
2.449.980-seq 13 3.600.001 3.349.980-seq 12 3.300.001
3.649.980-seq 13 3.600.001 3.49.980-seq 12 3.300.001
3.649.980-seq 13 3.600.001 3.49.980-seq 18 1.200.001
1.549.980-seq 19 1.500.001 1.849.980-seq 20 1.800.001
2.149.980-seq 22 2.700.001 3.049.980-seq 22 2.400.001
2.149.980-seq 23 2.700.001 3.049.980-seq 26 3.600.001
3.349.980-seq 25 3.300.001 3.649.980-seq 26 3.600.001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db 262525 AAAATAAATAAAATAAAAATAAAAATAAAACCTACCTATCAACTCCTATATTAATATA 262466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246 TATACAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCT 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          306 GAGAATAAAATGACTTTTGGTTCTGAGAAGACTTAGCGACAACTCTCCAATCTTCTAAT 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   366 TCTGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAAC 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426 ACAAATAAAATCAACAAATTTCTCTTGAAGTTCCGGGGAAAACTCAATCTCCACAATT 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.1%; Score 49.6; DB 6; Length 349980;
48.6%; Pred. No. 3.5;
tive 0; Mismatches 174; Indels 4;
                                           synthetic construct
artificial sequence.
I sites)
Olck,A., Piepenbrock,C. and Berlin,K.
Diagnosis of known genetic parameters within the mhc
Parent: WO 0200933-A 24 03-JAN-2002;
Epigenomics AG (DE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db 262405 CAAAACGAATA----AATCACCTAAAATCAAAAATTCAAAAACCAA 262364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    546 GAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAA 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4069 c 75030 g 170752 t
                                                                                                                                                                                                          Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 48.6
Matches 168; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                         REFERENCE
AUTHORS
TITLE
                                                                                                                                                               JOURNAL
                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
```

Search completed: November 2, 2002, 01:41:03 Job tlme : 2972.9 secs

LOWER AND THE TOWN OF THE

Human immune syste

Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

Minimum Maxlmum

```
Human; immune system disease; cytosine methylation; antiasthmatic; antiantaemic; cytostatic; nootropic; antianaemic; antiantaemic; antiantaemic; antiantiantic; anticonvulsant; ophthalmologica; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antimitineumatic; antiarthritic; eye disease; arteriosclarosis; anamatory; cancer; eye disease; arteriosclarosis; anamatic; autinitalmatory; cancer; eye disease; antipsoriatic; anticonverse myeloid leukaemia; Alzheimer's disease; AlDS; cpilopsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                      Human 1mmune system associated gene SEQ ID NO: 1496.
                                                                                                                                                                                                                                                                                      ALIGNMENTS
                                                                        ABL32363
ABL34477
ABL33697
ABL32921
ABL33983
AAS46756
                                                                                                                     ABL32151
ABL33250
ABL33751
AAL14804
AAS61047
ABL32141
                                                                                                                                                                        ABL33371
ABL32435
ABL32669
AAS61363
AAS46621
AAS61278
AAS46465
                                                                                                                                                                                                                                                        AAS46495
ABL33750
                                                                                                                                                                                                                                  ABL33384
ABL32254
                                                                                                                                                                                                                                                 ABL33041
                                                                                                                                                                                                                                                                                                                  ABL33523/c
TD ABL33523 standard; DNA; 6928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUL-2001; 2001WO-EP07537.
                                                                                                                                                                                                                                                                                                                                                        26-MAR-2002 (first entry)
5501
9110
9110
9123
9134
40862
3399
19734
5597
15674
15674
15674
15678
15678
15678
11650
5276
                                                                                                                                           693
5680
6061
5314
6191
6298
11049
18283
                                                                                                                                                                                                                    6565
7900
                                                                                                                            6591
7037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200200928-A2.
                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JAN-2002.
                                           466.6
466.6
466.2
466.2
                                                                                             44.8
44.8
44.8
                                                                                                                                                                                                                                                                                                                                         ABL33523;
                                                                                                                                                                                                                                                                                                                                                                                                                                         dene;
                                                                                                                                                                                                                                                                                                             RESULT 1
Human immune syste
Human immune syste
Human immune syste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immune syste
Human immune syste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           suppressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumour suppressor
Tumour suppressor
                                                 22:12:43; Search time 153.968 Seconds (without alignments) 7805.766 Million cell updates/sec
                                                                                                                                                                                                                       number of results predicted by chance to have a an or equal to the score of the result being printed, analysis of the total score distribution.
                                                                                       700
1 gaattcggcacgagattttt.....accgcatcctacagaaagc 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
      GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                   1736436 seqs, 858457221 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                    nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABL33561
AAS46771
AAS46439
ABL33368
ABL33414
ABL32335
AAT31530
ABL34043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABL33523
                                                                                                             IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 1s the number of res
score greater than or equal to
and is derived by analysis of
                                                                                                                                                                                                                    N_Geneseq_032802:*
                                                   2002,
                                                                                                                                                                length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2722222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                               US-09-881-556-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6928
5814
17280
7040
9817
17389
10528
605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                   ij
                                                   November
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.50
6.00
6.00
6.00
6.00
6.00
6.00
                                                                                                                                                                                                                                                                                             DB seq
DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    449.4
489.4
48.2
48.2
47.6
47.6
```

..

Database

(EPIG-) EPIGENOMICS AG

apolipopr mune syste

Human Human

Score

Result ş 126459786

000

00000

1mmnne

Tumour suppressor Human gene regulat Tumour suppressor Tumour suppressor Human gene regulat

Human immune syste 1mmune syste Human immune syste Human immune syste

fumour suppressor

```
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAS46771;
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                 The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders,
                                                                                                                                                                          including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurocibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcarative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4723
                                                                                                                                                                                                                                                                                                                                                             543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAAATTAAAAAAATAAAATATAACTTTTAAATTTCCTAAATCTATAAT-CAACAATAA 4664
                                                                                                                                                                                                                                                                                                                                                                                                 364 ATTCTGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTA 423
                                                                                                                                                                                                                                                                                                                                            304 CTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTA 363
                                                    Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal cytosine methylation
                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; immune system disease; cytosine methylation; antiasthmatic; antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antiIrheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4663 AAAAATCACACAAACTAAAAATTAAAAATTACCATAAAATACTATCAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      424 ACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4782 AAACATAAAATACCACGTATAAATATCTACTATACTAAAAACAAAAAGTAACCAAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          544 AAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604 CTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACAAAAG
                                                                                                                                                                                                                                                                                      Match 7.3%; Score 50.8; DB 24; Length 6928; Local Similarity 47.6%; Pred. No. 0.12; es 180; Conservative 0; Mismatches 197; Indels 1;
                                                                                                                                                                                                                                                             Sequence 6928 BP; 1852 A; 151 C; 1572 G; 3353 T; 0 other;
                                                                                                          Claim 1; SEQ ID NO 1496; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immune system associated gene SEQ ID NO: 1534.
 X
 Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABL33561 standard; DNA; 5814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4543 ACCCACACAATTTCTATA 4526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664 CCTCATCCAGTTGTTAGA 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
 ú
Piepenbrock
                            WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAR-2002
                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL33561;
                                                   Nucleic
 olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL33561/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene;
                                                                                                                                                                                                                                                                                                                 Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, Alzheilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; tumour suppressor gene; oncogene; antitumour; cytostatic; cancer; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP; cytosine methylation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419 AATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTC 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479 CACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTCTTTAAT--TAAACATGCG 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nseful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621 AAAAAAAAAAAAAACTAACAATACCCGAATATTCTCTATCTCTTTAATAACAAAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       537 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     597 GAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid comprising fragment of chemically modified gene, us for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour suppressor gene derived chemically modified sequence #495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 5814;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5814 BP; 1033 A; 135 C; 1458 G; 3188 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID NO 1534; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 7.1%; Score 49.4; DB 24;
Best Local Similarity 52.6%; Pred. No. 0.24;
Matches 131; Conservative 0; Mismatches 116:
                                                                                                                                                                                                                                                                                                                                                                             ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS46771/c
ID AAS46771 standard; DNA; 17280 BP.
                                                                                                                                                                                                                                                                                                                                                                             Berlin
                                                                                                                                                                                                      30-JUN-2000; 2000DE-1032529
01-SEP-2000; 2000DE-1043826
                                                                                                                                    02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                      Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                           (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657 CACAAAGCC 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441 TTCGAAACC 433
WO200200928-A2.
                                                                  03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-DEC-2001
```

1;

611 CAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCCTCATC 670

m

Mon Nov

```
The invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with bases, of a sequence taken itcm 536 (actually 533 since numbers 408, 458 and 500 are missing from the sequence listing) sequences complementary to (Ss). The nucleic acid may be a complementary to (Ss). The nucleic acid may be a complementary to (Ss) and sequences complementary to (Ss). The nucleic acid may be a compared in an array for analysing diseases associated with CpG dinucleotides and may for array for analysing diseases associated with CpG dinucleotides e.g. cancers and tumours The probes can also be used in a method for a secritaining genetic and/or epigenetic parameters for the diagnosis and/or therapy of existing diseases or the predisposition to specific diseases, by analysing cytosine methylations. The parameters may be compared to another set of genetic and/or epigenetic parameters may be compared to another set of genetic and/or epigenetic parameters and differences serving as basis for diagnosis and differences serving as basis for diagnosis and dor proposisis events which are disadvantageous to patients. The present sequence is one of the compared to another set of partients the present sequence is one of the compared to another set of partients. The present sequence is one of the compared to another set of partients are sequenced.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pragments of chemically modified genes associated with tumour suppressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAGAAAA 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             371 ATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAATTGGATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACT 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genes and oncogenes, useful in designing primers and probes for analysing diseases associated with cytosine methylation state e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.0%; Score 48.8; DB 22; Length 17280; 17.4%; Pred. No. 0.37; lve 0; Mismatches 162; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 17280 BP; 5287 A; 151 C; 3639 G; 8203 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID No 495; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47.48;
                                                                                                                                                                                                                                                                                                                                      06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                            15-MAR-2001; 2001WO-EP02955
                                                                                                                                                                                                                                                                                                       2000DE-1013847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      146; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-602752/68
                                                                              WO200168912-A2.
   Homo sapiens.
                                                                                                                                                                                                                                                                                                       15-MAR-2000;
                                                                                                                                                 20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oncogenes.
Note: The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              551
8 X Y X Y X Y X Y X Y X X X X X X X X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X Y X 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
```

```
The invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with bisulphite, of genes associated with tumour suppression and oncogenes having a sequence taken from 516 (actually 513 since numbers 408, 458 and 500 are missing from the sequence listing) sequences (SS) and sequences complementary to (SS). The nucleic acid may be a peptide nucleic acid-oligomer (PNA) of at least 9 nucleotides and may form part of a set of probes for detecting the cytosine methylation state and/or single nucleotide polymorphisms and also to be used in an array for analysing diseases associated with CpG dinucleotides e.g. cancers and tumours. The probes can also be used in a method for assocratining genetic and/or epigenetic parameters for the diagnosis and/or therapy of existing diseases or the predisposition to specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diseases, by analysing cytosine methylations. The parameters may be compared to another set of genetic and/or epigenetic parameters, the differences serving as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The present sequence is one of the 533 genomic sequences derived from tumour suppressor genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            suppressor
Human; tumour suppressor gene; oncogene; antitumour; cytostatic; cancer; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of chemically modified genes associated with tumour supproncogenes, useful in designing primers and probes for diseases associated with cytosine methylation state e.g.
                                                                                                                                                                                                                                                                                fumour suppressor gene derived chemically modified sequence #161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID No 161; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Berlin K;
                                                                                                                                                                     AAS46439 standard; DNA; 7040 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-MAR-2001; 2001WO-EP02955.
                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                        cytosine methylation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-602752/68.
                                                                         8158 TATTTTT 8151
                                      678
                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200168912-A2
                                      CAGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                              Homo saptens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-MAR-2000;
                                                                                                                                                                                                                                             18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oncogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               analysing
                                                                                                                                                                                                          AAS46439;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer
                                                                                                                                                   AAS46439/c
                                      671
                                                                                                                                RESULT
                                                                                                                                                                                                          g
                                      ö
                                                                                                                                                                     £
```

4

```
diseases. The present sequence is a gene of the invention
                                 Sequence 9817 BP; 2814 A; 174 C; 2033 G; 4794 T;
                                                          Query Match 6.9 Best Local Similarity 48.4 Matches 134; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL33414;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene; ds.
                                                                                                                                                                                                                                                474
                                                                                                                                                                                                                                                                              1719
                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
ABL33414
   SXS
                                                                                                                            à
                                                                                                                                                     g
                                                                                                                                                                                     à
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel
                                                                                                                                                                                                                                                                                                             1830 AAAACATATTTATTAAATAATTTAAATTTAAAAATATCCTATCAAAACTAAAATAACTCG 1771
                                                                                                                                                                                               1770 ITTTCATATTAAACTAACATACAATTTAAATATTTTTCTACTCTTAAATTTTACGATTAA 1711
                                                                                                                                                                                                                                                        542
                                                                                                      423 AACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACA 482
                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhemmatic; antiarthritic; antidabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                  543 AAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCC
                                                                                                                                                                                                                                                                                          603 ACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              wucleic acid comprising fragment of chemically modified gene, us
for diagnosis and treatment of diseases associated with abnormal
cytosine methylation -
                                                                            ;
                                              Length 7040;
            Sequence 7040 BP; 2018 A; 184 C; 1566 G; 3272 T; 0 other;
                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; SEQ ID NO 1341; 32pp + Sequence Listing; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immune system associated gene SEQ ID NO: 1341
                                                                       0; Mismatches 111;
                                              DB 22;
                                            Score 48.4;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                ABL33368 standard; DNA; 9817
                                            6.9%;
52.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                       Matches 127; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-130909/17.
                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                ABL33368;
                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human;
                                                                                                                                                                                                                                                                                                                                                                                 ABL33368/C
× S
                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                  ð
                                                                                                                                                                                               g
                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                          å
                                                                                                                                                                                                                                                                                                                      셤
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences
                                                                                                                                                                     ATTICIAAAATACTATCAAACCTTAATACAAATAAATTACCATAAATTATCACTCAAAAA 1660
                                  Gaps
                                                                  354 CAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATAT 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhemmatic; antiarthritic; antidabetic; antipsoriatic; antiinflammatory; cancer: eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilopsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease,
                                                                                                                                   414 ATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCA
                                                                                                                                                                                                                                                                          534 GCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                       ATCICCACAATIGGATATIGGAGTATTATCGATGGATTTTTCTTCTTCTTAATTAAACAT
                                  ö
Length 9817;
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO 1387; 32pp + Sequence Listing; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immune system associated gene SEQ ID NO: 1387.
                Pred. No. 0.46;
0; Mismatches 143;
DB 24;
                                                                                                                                                                                                                                                                                                                                                                            1599 AATAATTCCATAAAATAAAACTATAATAAAACACGT 1563
                                                                                                                                                                                                                                                                                                                                                AATGAAGCCACTAAACTCAACAAATCCAGAATCAGGT 630
Score 48.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABL33414 standard; DNA; 17389
6.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUN-2000; 2000DE-1032529. 01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-130909/17.
```

S

Mon Nov

```
446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                             ö
can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukacmia, Alzheimer's disease, AIDS, cpilepsy, neurofibromatosis, rheumatoid arthitis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                 74 ATTAITTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGA 133
                                                                                                                                                                          Gaps
                                                                                                                                                   14 GATTITITITITITICITITACCIAITICAATIAGTITCITIGATICAAACGAIGCAAAGIC 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antianfilammatory; cancer; eye disease; arteriosclerosis; anemia; acute myeloid leukaemia; Alzhelmer's disease, AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                      839 TITAGAAGGTATGTATTAAATTGTTAAATAATTAATTAAATGAAGTTGGGGTTATAGGGTA
                                                                                                                                                                                                                                                                    194 TGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAA
                                                                                                                                                                                                                                                                                                                                         254 AACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                               134 AATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCT
                                                                                                      DB 24; Length 17389;
                                                                                                                             ö
                                                                               Sequence 17389 BP; 4806 A; 201 C; 3688 G; 8694 T; 0 other;
                                                                                                    Score 48.2; DB 24; Length
Pred. No. 0.49;
0; Mismatches 168; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immune system associated gene SEQ ID NO: 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABL32335/c
ID ABL32335 standard; DNA; 10528 BP
                                                                                                     Query Match
Bost Local Similarity 47.0%;
Matches 149; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUN-2000; 2000DE-1032529.
                                                                                                                                                                                                                                                                                                                                                                                                             1079 AAATGATGTGGTTTTTG 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                      314 AATGACTTTTGGTTCTG 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene; da.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL32335;
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88888888
                                                                                                                                                    ò
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                       ð
```

```
;
                                                                                                                                                                          The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disporders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid reluxaemia, Alzheimer's disease, Alzh. epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4560 TAAAAATAAAAACATAATCCAATCCTTAATCTTAAAAACATACTATATATAACAAATAA 4501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            386 TACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAAT 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      506 TGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAA 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          326 TICIGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCT 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4619 TATACTCATTCAATAAACATTTATTAATACCTCCTTTAAC-CAAATACTATCATAAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTCTTGAAAGTTCCGGAGAAAACTCCAAATCTCCACAATTGGATATTATCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             566 TCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCAACAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 24; Length 10528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erythropoietin; EPO; anaemia; gene therapy; vector; scaffold attachment region; SAR element; apolipoprotein B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 10528 BP; 2873 A; 86 C; 2164 G; 5405 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                              Claim 1; SEQ ID NO 308; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human 3' apolipoprotein B SAR element clone Rh32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred No. 0.51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.9%; Score 48; 50.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAT31530/c
ID AAT31530 standard; cDNA; 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94US-0358918.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95WO-CA00696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transgenic animal; ss.
                                                                  cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1996-309587/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 146; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CANG-) CANGENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9619573-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Delcuve G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAT31530
```

9

```
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAS61244/
  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                         ö
                                                                                           carry
                                                                                                                                                                                                                                                                                                                                        425 AAATATGTAATTATAAATACTTTATAAAATATGTAATTATAAAATATGTAATTATAAACA 366
                                                                                                                                                                                                                                                                                                                                                                                 305 TITIAAITAAAATATGIAATTATAAACATTITAAATATAAAATATTAAATTATAAATA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA 414
                                                                                                                                                                                                                                                                                                                                                                  415 TTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        535 CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATA 594
                                                                          Human apolipoprotein B (apoB) scaffold attachment region (SAR) element clones Rh32 (AAT31530) and Rh10 (AAT31531) respectively carried as 'human apoB SAR element and the distal 1212 bp 5' human apoB SAR element and 1317 bp proximal sequence. These SAR elements co-map with the boundaries of the human apoB gene chromatin domain. A novel recombinant DNA molecule adapted for transfection of a host call comprises an erythropoletin (EPO) coNA (AAT31529) or genomic clone (AAT31532) operably linked to an expression control sequence and to the 5' and 3' SAR elements. The SAR elements increase expression of the recombinant EPO in stable, long-term
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; Immune system disease; cytosine methylation; antiasthmatic; antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antiIrheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                       ö
Recombinant DNA molecule expressing mammalian erythropoietin useful to transform cell lines, and for gene therapy, e.g. of anaemia and other red blood cell disorders
                                                                                                                                                                                                                                                               Length 605;
                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immune system associated gene SEQ ID NO: 2016.
                                                                                                                                                                                                                                     Sequence 605 BP; 278 A; 18 C; 35 G; 274 T; 0 other;
                                                                                                                                                                                                                                                               DB 17;
                                                                                                                                                                                                                                                              Score 47.6; DB 17;
Pred. No. 0.42;
0; Mismatches 129;
                                                   Claim 7; Page 59-60; 84pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABL34043/c
ID ABL34043 standard; DNA; 10039 BP.
                                                                                                                                                                                                                                                              6.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000; 2000DE-1032529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                             mammalian cell cultures.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          595 ATGAAGCCACTAAA 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185 TTTTAATTAAAA 172
                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-MAR-2002
                                                                                                                                                                                                                                                                                       fatches 125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL34043;
                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                      475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
셤
                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

```
ï
                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, Alzheilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; Gene regulation-associated gene; severe combined immunodeficiency; cardiac damage; inflammatory response; Haemophilia; Werner syndrome; asthma; HDR syndrome; congenital heart defect; Saethre-Chotzen syndrome; renal disease; Preeclampsia; cardiac allograft vascular disease; colorectal cancer; thyroid cancer; oesophageal cancer; ds; tumour; immunostimulant; cardiant; antiinflammatory; coaqulant; antiasthmatic; nephrotropic; gynecological; anti-tumour; immunosuppressive; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6338 AAAAAAAATCTTAATATACTTACTATAATCATTAACACAATATTACTTAAAAACTTACA 6279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           410 ATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAA 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        585 AAATGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAAC 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                      Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              470 CTCAA----TCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 525 ATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 10039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human gene regulation-associated gene oligonucleotide #199.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10039 BP; 2709 A; 235 C; 2454 G; 4641 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 0.61;
0; Mismatches 119; Indels
                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 2016; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 47.6; DB Pred. No. 0.61;
                                                                      Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS61244 standard; DNA; 5501 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.8%;
51.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6278 TATATAAATAAAACAAA 6261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          645 TCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best_Local Similarity 51.9
Matches 134; Conservative
                                                               Piepenbrock C,
(EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                            cytosine methylation
                                                                                                                                  WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200177375-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS61244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                               olek A,
```

_

```
The invention relates to 224 nucleic acid sequences comprising at least 18 bases of a chemically pretreated gene associated with gene regulation selected from 43 known genes (or complementary sequences). The chemical pretreatment converts cytosine bases unmethylated at the chemical pretreatment converts cytosine bases unmethylated at the chemical pretreatment converts cytosine bases unmethylations. The chemical pretreatment converts cytosine bases unmethylations. Companies of cytosine methylations. The DNA sequences, oligomers (or sets/arrays) and method are useful in the diagnosis of diseases (or predisposition to diseases) associated with gene requiation and in therapy of such diseases, by enabling analysis of the cytosine methylation patterns of such genes, kits are provided. They are especially useful in diagnosis and therapy of e.g. severe combined immunodeficiency disease, cardiac and therapy of e.g. severe combined immunodeficiency disease, cardiac disorders, hemophilia, solid tumours and cencer, Werner syndrome, sethma, HDR syndrome, Saethre-Chotzen syndrome, renal disease, cardiac disorders, hemophilia, solid tumours and cencer, Werner syndrome, sequence data for this sepeciated genes.

Concertangels, agraft versus-host disease. The present sequence is a sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at.

Contract directly from WIPO at.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                              New nucleic acid sequences from chemically modified genes associated with gene regulation, useful for analysing cytosine methylations for diagnosis and therapy of diseases e.g. severe combined immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2813 AAAATTCTTTAAAACATTTTATCTTTAAATACCTATTATAAACTAAAACTATCCAATAA 2754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2753 ACAACCTAATATATAAAACTAAAACTCAAAAAAAAAATCAAAACTTAAACTATAAATTTA 2694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1693 AAAAACTITCAAACTAAACATACCATITAAACAATAAAACTAAACAAATTAAAAAAACT 2634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334 AAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  394 ATAACTGCATTCTTGGATATATCCAATTAACACAAATAAAATCAACAAAATTTCTCTTG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        514 CTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAAT 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGTTCCGGAGAAAACTCCAAATTCGATATTGGAGTATTATCGATGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      574 CAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.7%; Score 47.2; DB 24; Length 5501; 46.6%; Pred. No. 0.6%; 1.1ve 0; Mismatches 173; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5501 BP; 1484 A; 107 C; 1262 G; 2648 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; SEQ ID No 204; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATAACTTAACTCAGAACCAAAAC 657
                                                                  06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                      06-APR-2001; 2001WO-EP03968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 151; Conservative
                                                                                                                                                                                                                                     Dlek A, Piepenbrock C,
                                                                                                                                                                                        (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                    WPI; 2002-017470/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                          disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system discorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          394 ATAACTGCATTCTTGGATATATTCCAATTAACACAAAATAAAATCAACAAAATTTCTCTTG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGTTCCGGAGAAAACTCCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTT 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAAT 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334 AAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                       Human; Immune system disease; cytosine methylation; antiasthmatic; antianeamic; oytostatic; oottopic; antianeamic; antianeamic; antianeamic; antianeamic; antirheumatic; antiarthritic; antidonulsant; ophthalmological; antitheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinfammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukamia; Alzhaimer's disease; AlDS; epilopsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acid comprising fragment of chemically modified gene, us
for diagnosis and treatment of diseases associated with abnormal
cortosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.7%; Score 47.2; DB 24; Length 9
46.6%; Pred. No. 0.73;
tive 0; Mismatches 173; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 9110 BP; 2699 A; 146 C; 2072 G; 4193 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; SEQ ID NO 2401; 32pp + Sequence Listing; German.
                                                                                                                                                   Human immune system associated gene SEQ ID NO: 2401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ž
                                   ABL34428 standard; DNA; 9110 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 46.6
Matches 151; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ¥G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                       WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                               26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JAN-2002
                                                                           ABL34428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Olek A,
RESULT 11
ABL34428/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            454
                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
```

ö

å 요 ð 8

```
581 CTTACTCTTATACATTTCAATTTTTTTTATTTATTTAACTCAAAAATTTTTAAAACCAC 522
                                   539
                                                                                                                                                                                                                                         ò
                                                                 원
                                                                                                   ò
                                                                                                                                   엄
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides a number of human immune system associated dense which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucome and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AnDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                         Human; Immune system disease; cytosine methylation; antiasthmatic;
antiarteriosclerotic; antianaemic; cytostatic; nootropic;
neuroprotective; anti-HIV; anticonvulsant; ophthalmological;
                                   antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; ALDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                CAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          telc acid comprising fragment of chemically modified gene, us diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 47; DB 24; Length 6123;
Pred. No. 0.77;
); Mismatches 120; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6123 BP; 1829 A; 102 C; 1209 G; 2983 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; SEQ ID NO 793; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                           Human immune system associated gene SEQ ID NO: 793.
                                                                                                       6242 AATTAAAAACTAAAATATAAAAC 6219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Berlin K;
                                                                                 634 AATAACTTAACTCAGAACCAAAAC 657
                                                                                                                                                                                                  ABL32820 standard; DNA; 6123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000DE-1032529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000; 2000DE-1043826
                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acid comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200200928-A2
                                                                                                                                                                                                                                                                         26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-JAN-2002.
                                                                                                                                                                                                                                       ABL32820;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Olek A,
                574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene;
                                                                                                                                                                                   ABL32820,
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system discorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, Alzb. epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACAT 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTC 450
                                                                                                                                                   599 AGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAAC 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiathritic; antidabetic; antipsoriatic; antilnflammatic; antiathritic; antidabetic; antilnflammaticy; cancer; esses; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheiner's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune system disease; cytosine methylation; antiasthmatic;
TATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acid comprising fragment of chemically modified gene, us for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 8392;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 47; DB 24; Length 83
Pred. No. 0.8;
0; Mismatches 150; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; SEQ ID NO 1463; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8392 BP; 2018 A; 71 C; 1672 G; 4631 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immune system associated gene SEQ ID NO: 1463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Berlin K;
                                                                                                                                                                                                                                                                                                                                      ВР
                                                                                                                                                                                                                                                                                                                               ABL33490 standard; DNA; 8392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
```

ö

ö

ő

ö

Conservative

(atches 119;

Similarity

Local

<u>=</u>

= -=

479

ò

a ò

σ

a

g õ

ò

```
AAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAA 587
                                                                         TGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCA
                                                                                                                                                                                                                                                                                      ABL34072 standard; DNA; 40862
                                                                                                                                                                                          5454 CAAACAATAAAAAA 5440
                                                                                                                                                     GAACCAAAACACAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene;
                                                                                                                                                     648
                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                      ABL34072/
                                                                                                                                                                                                                                                                                                            q
                                                                                                           a
                                                                                                                                                                                        셤
                                                                                                                                                     ð
                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disporders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukemia Alzheimer's disease, AnDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
               5942 AAAAAAAATAATTAATCTAATATAAAATATAACCATAAAAATCCATACTTATCAC 5883
                                                                                         5882 TAATAACTATAAAAATAAATACACCATACATAAACGTATAAAATACTTAAATCCAATTCTA 5823
                                                                                                                                                                     5822 ТАТТТТСТТТТАСТТТААААРСАТАССАТТТААААТТССААТТТСТАТТТТААТАААА 5763
                                                                                                                                 TITCTICITCTTTAATTAAACAIGCGCCTATAAAAGAAATGGCCACTIGAATAATCAAG 570
                                                       TTGAAAGTTCCGGAGAAAACTCCAATCTCCACAATTGGATATTGGAGTATTATCGATGGAT 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal cytosine methylation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antiarterioscierotic; antianaemic; cytostatic; nootropic; nouroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhemmatic; antiarthritic; antidabetic; antipsoriatic; antilnilammatory; cancer; eye disease; arterioscierosis; anemia; acute myeloid leukaemia; Alzhelmer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17893 BP; 4956 A; 347 C; 4143 G; 8447 T; 0 other;
                                                                                                                                                                                                                                Claim 1; SEQ ID NO 1338; 32pp + Sequence Listing; German.
                                                                                                                                                                                                          AATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immune system associated gene SEQ ID NO: 1338.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K;
                                                                                                                                                                                                                                                                                                                                365/c
ABL33365 standard; DNA; 17893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUL-2001; 2001WO-EP07537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000DE-1032529.
2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUN-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                         26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                   ABL33365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene;
                                                                                                                                                                                                          571
                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                              ABL33365,
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, necvascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid trakaemia, Alzhaimer's disease, AnDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 TTTTCTATACAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                         antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidabetic; antipsoriatic; antilnflammatory; cancer disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilopsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease.
                                                                                                                                                                                                                                                                 Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ë,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 24; Length 40862;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 40862 BP; 10964 A; 414 C; 8171 G; 21313 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 230; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 2045; 32pp + Sequence Listing; German.
                                                                                                                                                                                                Human immune system associated gene SEQ ID NO: 2045.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0.99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 47;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berlin K;
BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000; 2000DE-1032529. 01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUL-2001; 2001WO-EP07537
                                                                                                                               26-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 198; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo saptens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-2002
                                                                 ABL34072;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

2

ô

Gaps

ö

55; Indels

Query Match 6.7%; Score 47; DB 24; Length 17893; Best Local Similarity 59.3%; Pred. No. 0.88; Matches 80; Conservative 0; Mismatches 55; Indels 0;

```
27355 ATACACATTAATTTACAAAACTATATTTAAAAAAACCAATCCTCAACATAAATAAAAA 27296
                                                                                                                               361 CTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATTTCCA- 419
                                                                420 --ATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCT 477
                                                                                                Search completed: November 1, 2002, 23:23:04 Job time: 282.968 secs
                                                                                                                                                                                                                27175 AAAAAAACTAA 27165
                                                                                                                                                                                                658 ACAAAGCCTCA 668
                                                                                                              g
                                                                                                                                                                                qq
                                                                                                                                              q
                                              q
                                                                             g
                                                                                                                                 õ
                                õ
                                                                 à
                                                                                             ö
                                                                                                                                                                 ò
 à
```

-

```
Sequence 16, Appl
Sequence 66, Appl
Sequence 69, Appl
Sequence 1, Appl
Sequence 1, Appl
Sequence 1, Appl
Sequence 3, Appl
Sequence 3, Appl
Sequence 3, Appl
Sequence 16, Appl
Sequence 4, Appl
Sequence 4, Appl
Sequence 28, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-00-883-795A-36/c
Sequence 36, Application US/08883795A
Sequence 36, Application US/08883795A
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Awang, Gregor
TITLE OF INVENTION: Recombinant DNA Molecules and Expression
TITLE OF INVENTION: Vectors for Tissue Plasminogen Activator
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUBER: US/08/883,795A
FILING DATE: 27-JUN-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 43.6; DB 2;
Pred. No. 0.091;
0; Mismatches 114;
PCT-US95-04681-16
US-08-651-472-66
US-08-358-928-66
US-08-358-928-69
US-08-928-69
US-08-928-69
US-08-928-69
US-08-647-714-1
US-08-647-714-1
US-08-647-714-3
US-08-647-714-3
US-08-647-714-3
US-08-938-416-186
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-928-692-16
US-08-973-068-28
US-08-70-179-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY AGENT INFO TO THE ATTORNEY AGENT INFO TO THE REGISTRATION NUMBER: 40,261
REFERENCE/DOCKET NUMBER: 781-062
TELEPHONE: (416) 364-7311
TELEPHONE: (416) 364-7311
TELEPHONE: (416) 361-1398
INFORMATION FOR SEQ ID NO: 36: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: BERESKIN & PARR STREET: 40 King Street West CITY: Toronto STATE: Ontario COUNTRY: Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo saptens
IMMEDIATE SOURCE:
CLONE: Rh 32
             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: CDNA ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: Ontario
COUNTRY: Canada
ZIP: M5H 3Y2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
             US-08-883-795A-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Simi
Matches 112;
             \overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\circ}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}\overset{\overset}{\omega}
             00000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16, Appl
14, Appl
7, Appl
8, Appl
16, Appl
11, Appl
11, Appl
2, Appl
21, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70, Appl
1, Appli
9, Appli
17, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Appl
Appl
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Appl
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                          2002, 22:17:03 ; Search time 34.9206 Seconds (without alignments) 4923.835 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              700
1 gaattcggcacgagatttt.....accgcatcctacagaaagc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1: /cgn2_6/ptodata/1/lna/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/lna/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/lna/6A_COMB.seq:*
5: /cgn2_6/ptodata/1/lna/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/lna/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/lna/PCTUS_COMB.seq:*
                                                   GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-391-743A-1

US-08-391-743A-1

US-08-9004-838-70

US-08-202-186-13

US-08-202-186-13

US-09-349-677-4

US-09-349-677-4

US-08-202-186-14

US-08-202-186-14

US-08-202-186-14

US-08-202-186-16

US-08-202-186-16

US-08-202-186-16

US-08-202-186-16

US-08-202-186-16

US-08-202-186-16

US-08-302-170B-1

US-08-302-170B-1

US-08-956-441-1

US-08-956-441-1

US-08-472-318-3

US-08-473-318-3

US-08-473-318-3

US-08-473-318-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCT-US95-07178-3
US-08-417-210A-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   383533 seqs, 122816752 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                    nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-881-556-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   665
43515
4208
3706
176373
11104
11103
11103
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
10660
106
                                                                                                                                                                                                                                                                                                                        November
```

DB sed I

Minimum [Maximum [

Database

Perfect score:

Sequence:

nucleic

S

Run on:

Scoring table:

Searched:

ö

Gaps

ö

Indels

Conservative

US-08-449-645A-16 US-08-702-367A-16

336.336.336 336.336.336 36.336.336 36.336 36.336 36.336 36.336 36.336

39.6 39.6 39.4 39.2 38

00000000

Score

Result . و 37.8 37.8 37.8 37.4 37.4

Similarity

```
1464 ACAAATATGAATTTTTCTTTAAAGCTAAACCTGATTTTATTTTTATTTTTCCAAAGGAAT 1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/004,838
FILING DATE: 09-DAN-1998
CLASSIFICATION: 800
PRIOR APPLICATION NUMBER: US 08/781,734
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                            Sequence 70, Application US/09004838 Patent No. 6350933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 70:
SEQUENCE CHARACTERISTICS:
LENGTH: 4163 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Elhhorn, Gregory P.
REGISTRATION NUMBER: 38,440
REFERENCE/DOCKET NUMBER: 02:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 5.7
Best Local Similarity 52.9
Matches 108; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATURE.
NAME/KEY: - ..4163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94111-3834
                                                                                                                                                                                                                     RESULT 3
US-09-004-838-70
                                         ö
                                                                                qq
                                                                                                                      ŏ
                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            337 CATTTTAATTATAAAATTATGTAATTATAAACATTTTAAATATATAAAATATTATAAAA 278
383 CCTTACATGGAATAACTGCATTCTTGGATATTTCCAATTAACACAAATAAAATCAACAA 442
                                    397 CATITIAATTAAAATATGTAATTATAAACATTTTAATTATAAATATGTAATTATAAA 338
                                                                                                                                                                                              307 AGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATT 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                367 CTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACA 426
                                                                                                                                                         503 CGATGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAA
                                                                         443 AATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGGAGTATTAT
                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Difullio, Paul A.; Meade, Harry; Cole, Edward S.
ITLE OF INVENTION: TRANSGENETICALLY PRODUCED ANTITHROMBIN III
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2; Length 3515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                          563 TAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAA 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATUS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
RPPLICATION NUMBER: US/08/391,743A
FILING DATE: 21-FEB-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 40.6; DB 2;
Pred. No. 0.61;
0; Mismatches 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Myers, Paul Louis
REGISTRATION NUMBER: 35,965
REFERENCE/DOCKET NUMBER: TCI-045
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)742-7400
TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: LAHIVE & COCKFIELD, STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/08391743A Patent No. 5843705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: 11near
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.8%;
ilarity 48.1%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 3515 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRAGMENT TYPE: N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Massachusetts: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 28 SI
CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: MACCOUNTRY:
                                                                                                                                                                                                                                                                                                                                      RESULT 2
US-08-391-743A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-391-743A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 115;
                                      g
                                                                                                              g
                                                                                                                                                         ò
                                                                                                                                                                                            셤
                                                                                                                                                                                                                                     å
ç
                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
1524 CTATTACACACATCAATAAGGTAAAACCTTCATATTTAAACGTATCATTTTAAAAATTT 1583
427 CAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAATCTCCAAATTG 486
                                                                                                                                     453 GAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTT 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                393 AATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTT 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                            GENERAL INCORDATION:
APPLICANT: Michelmore, Richard W.
APPLICANT: Shen, Kathy
APPLICANT: Shen, Kathy
TITLE OF INVENTION: Procedures and Materials for
TITLE OF INVENTION: Conferring Pest Resistance in Plants
NUMBER OF SEQUENCES: 140
CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CIT: San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.7%; Score 40; DB 4; Length 4163;
52.9%; Pred. No. 0.87;
iive 0; Mismatches 95; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              023070-078810US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; LOCATION: 1..4163
; OTHER INFORMATION: /note= "RLG1-E169"
US-09-004-838-70
```

ä

m

```
TITLE OF INVENTION: Plasmid-derived type II
TITLE OF INVENTION: restriction-modification systems from Lactococcus lactis
NUMBER OF SEQUENCES: 14
COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /standard_name= "Gene coding for LlaBI methylase"
/label= m-llaBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 679 TTAGCTAAGATATTGAACTCAGTTATTATGAAATATTATATTGAAAACACTAGTTATATG 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399 TGCATTCTTGGATATATCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGT 458
296 CATCCTTAATTTATTTATTTATTTAGAGTAGATGATCTTTGTGATATTAAAAAT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             339 TTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAAC 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 3706;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /standard_name= "Gene coding for LlaBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start= 2464
/product= "Llan endonuclease"
/evidence= EXPERIMENTAL
/gene= "ORF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start= 422
/codon_start= 422
/product= "LlaB1 methylase"
/evidence= EXPERIMENTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.7%; Score 39.6; DB 4;
47.9%; Pred. No. 1.1;
iive 0; Mismatches 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Lactococcus lactis subsp. cremoris
STRAIN: W56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        experimenta]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   endonuclease"
/label= r-llaBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/913,159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: DK 0179/95
FILING DATE: 17-FEB-1995
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 3706 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (422..2161)
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene= "ORF"
                                          573 TCAAAATATTCAAAATGAAATAAT 596
                                                                US-08-913-159-9/c; Sequence 9, Application US/08913159; Patent No. 6300109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /number- 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /number-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 2464..3360 IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Sim
Matches 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-913-159-9
                                                                                                                                                                                                                                                               APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
  g
                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  453 GAAAGTTCCGGAGAAAACTCAATCTCCAATTGGATATTGGAGTATTATCGATGGATTT 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             513 TCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAA 572
513 TCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAA 572
                      296 CATCCTTAATTTATTTATTTATTTATTAGAGTAGATGATCTTTGTGATATTAAAAAT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          177 ANTANTGCATATTTATTTTTCTTTANATANACGCATATANATATATATATAATAA-AAATCAT 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  393 AATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTT 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 5.7%; Score 40; DB 4; Length 4208; Best Local Similarity 52.9%; Pred. No. 0.87; Matches 108; Conservative 0; Mismatches 95; Indels
                                                                                                                                                                                                                                                                                            APPLICANT: Michelmore, Richard W. APPLICANT: Shen, Kathy
APPLICANT: Shen, Kathy
APPLICANT: Shen, Kathy
APPLICANT: Meyers, Blake
TITLE OF INVENTION: Conferring Pest Resistance in Plants
NUMBER OF SEQUENCES: 140
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/004,838
FILING DATE: 09-JAN-1998
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Einhorn, Gregory P.
REGISTRATION NUMBER: 38,440
REFERENCE/DGORET NUMBER: 023070-078810US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 1..4208

OTHER INFORMATION: /note- "RLG1A"
US-09-004-838-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/781,734 FILING DATE: 10-JAN-1997 ATTORNEY/AGENT INFORMATION:
                                                                              Sequence 1, Application US/09004838; Patent No. 6350933; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 4208 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _
=
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: 11near
MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS
                                                                                                                                                                                            RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                          g
                                                                                  ð
                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

ö

Gaps

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
619 ATAGGCGGAGGATACTTTGCTTTCAAAAAATATCTTAAAAATTTTTCAATTCCACAT 560
                                                          459 TCCGGAGAAAACTCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCT 518
                                                                                              559 TITGAAAAGACGAATTAACTTTTATTAAAAATTGCGATTCTAAAAGAGAGCTTGATTA 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   794 TCCTCTTTGCATCTGGGAATATCAAATATAACTATATCCTCATAATTATACAATCTACAT 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379 TTTTCCTTACAIGGAATAACTGCATTCTTGGATATTTCCAATTAACACAAATAAAATCA 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            439 ACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGGAGTA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                        519 TCTTTAATTAAACATGCGCCTATAAAAGAAATGGCCACTTGAATAATCAAGAATCAA 576
                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                          Sequence 17, Application US/08202186
Patent No. 5756708
GENERAL INFORMATION:
APPLICANT: KARAN, Mirko
APPLICANT: DALE, James L.
APPLICANT: DALE, James L.
TITLE OF INVENTION: DNA Sequences of Banana Bunchy Top Virus
NUMBER OF SEQUENCES: 60
CORRESPONDER: DALESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.6%; Score 39.4; DB 1; Length 1104; 53.6%; Pred. No. 0.92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESER: Foley & Lardner
STREET: 3000 K Street, N.W.
CUTY: Washington, D.C.
COUNTRY: USA
ZIP: 20007-5109
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATIOS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,186
FILING DATE: 24-FEB-1994
CLASSIFICATION: 435
ATTONEY/AGENT INFORMATION:
NAME: JEFFERY, DORAIG D.
REGISTRATION NUMBER: 19,980
REGISTRATION NUMBER: 19,980
REGISTRATION NUMBER: 71611/102 FIRE
TELECOMMUNICATION INFORMATION:
TELEFERX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        499 TTATCGATGGATTTTCTTCTTTTAATTAAAC 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                734 ATATCCAATGATTTTCCTCCTGGCGAATAAAAC 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 904136
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1104 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: circular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 53.6
Matches 82; Conservative
                                                                                                                                                                                                                                                           US-08-202-186-17/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-202-186-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                셤
                                                                                                                                          δ
                  g
                                                            ö
                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

RESULT 7 US-08-202-186-18/c

```
855 TATTICCCGCTTTGAATAATTCCATTCTTAAATTCTTCTAATAAACCATAGTTTAAATAT 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     439 ACAAAATITCICITIGAAAGIICCGGAGAAAACICAAITCICCACAAIIGGAIAIIGGAGIA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             795 TCCTCTTGCATCTGGGAATATCAAATATAACTATTTCCTCATAATTATACAATCTACAT 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 17, Application US/09128155
Patent No. 6117654
GENERAL INFORMATION:
APPLICAMY: Pan, Yang
TITLE OF INVENTION: NOVEL MOLECULES OF TANGO-77 RELATED PROTEIN FAMILY
TITLE OF INVENTION: AND USES THEREOF
FILE REPERENCE: 09404/052001
CURRENT APPLICATION NUMBER: US/09/128,155
CURRENT APPLICATION NUMBER: US 60/091,650
EARLIER FILING DATE: 1998-07-02
EARLIER FILING DATE: 1998-07-02
EARLIER FILING DATE: 1997-08-04
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
Sequence 18, Application US/08202186
Patent No. 5756708
GENERAL INFORMATION:
APPLICANT: RARAN, Mirko
APPLICANT: BULE, James L.
APPLICANT: BULE, James L.
APPLICANT: HARDION: DNA Sequences of Banana Bunchy Top Virus UNBRESCONDENCE APPLICANT: 60 CORRESPONDENCE APPLICANT: APPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 39.4; DB 1; Length 1105;
Pred. No. 0.92;
0; Mismatches 71; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: FLOPPY disk

COMPUTER: IBM PC compatible

SECTION: Version #1.25

CONFORME: 24-FEB-1994

CLASSIFICATION NUMBER: US/08/20,186

FILING DATE: 24-FEB-1994

CLASSIFICATION NUMBER: 19,980

REFERENCE/POCKET NUMBER: 71611/102 FIKE

TELEPHONE: 202 672 5399

TELEPHONE: 202 672 5399

TELEPK: 904136

INFORMATION FOR SEQ ID NO: 18:

SEQUENCE CHRARACTERISTICS:

LENGTH: 1105 base pairs

TELENTH: 1105 base pairs

TELENTH: CITCULAL

SEQUENCE CHRARACTERISTICS:

LENGTH: 1105 base pairs

TELENTH: CITCULAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 499 TTATCGATGGATTTTCTTCTTCTTTAATTAAAC 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3000 K Street, N.W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 5.6%;
Best Local Similarity 53.6%;
Matches 82; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 3000 K Street,
CITY: Washington, D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
US-09-128-155-17/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-202-186-18
```

ഗ

```
Best Local Similarity
Matches 86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: Un
ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE
                                                                                                                                                                                                                                                                                    RESULT 10
US-09-349-677-4/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                        쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                          g
                                                                                                                                                                                    õ
                                                                                                    ò
                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc_feature
LOCATION: 1..6138
OTHER INFORMATION: /label= AGL5_promoter
OTHER INFORMATION: /note= "Nucleotide sequence of the AGL5 promoter."
                                                                                                                                                                                                                                                                                                                          Db 87545 AGTITATITITITGCTITCTCCCATITCACTITGTAGAAAITITAAGGACACAAAAG 87486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                       13 AGATTTTTTTTTTTTTCTTTACCTATTTCAATTAGTTTCTTTGATTCAAACGATGCAAAGT 72
                                                                                                                                                                                                                                                                                                                                                                                                           Db 87485 CCATGAGACTATTATTCTCACCTCTCAGCTTTAACTGTCAATATATTTTACTAAA 87430
                                                                                                                                                                                                                                                                                                                                                                                    73 CATTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAA 128
                                                                                                                                                                                                                     Score 39.2; DB 3; Length 176373; Pred. No. 2.7; 0; Mismatches 48; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 5.4%; Score 38; DB 4; Length 6138; Best Local Similarity 51.8%; Pred. No. 2.7; Matches 86; Conservative 0; Mismatches 80; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Yanofeky, Martin F.
APPLICANT: Ferrandiz, Cristina
TITLE OF INVENTION: Seed Plants Characterized by Delayed
TITLE OF INVENTION: Seed Dispersal
NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
APPLICATION NUMBER: US/09/067,800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGIENATION UNDBER: 31,815
REFERENCE/DOCKET NUMBER: P-UD 2948
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
SEQUENCE CHARACTERISTICS:
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                   NAME/KEY: misc_feature
LOCATION: (1)...(176373)
CTHER INFORMATION: n = A,T,C or G
US-09-128-155-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09067800 Patent No. 6198024 GENERAL INFORMATION:
                                                                                                                                                                                                                       5.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6138 base pairs
                                                                                                                                                                                                               Ouery Match
Best Local Similarity 58.69
Matches 68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    San Diego
: California
XY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
EDNESS: unknown
GY: unknown
                                                        TYPE: DNA
ORGANISM: Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                       LENGTH: 176373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-067-800-4/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-067-800-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE:
                    SEQ ID NO 17
                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                    ô
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  promoter."
                       3739 CAAATAAAACAATATTTTGAAAACATTTATCTTTAAAAAGGAGACAAATAATCAAAAT 3680
                                                                                                                                                3679 GGTGAAATGAACATGAGCTGTTAATAGCTGGAAACGTATAGAAAAACGGAAATGACAAGT 3620
418 CAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCT 477
                                                                                               418 CAATTAACACAAATAAAATCAACAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCT 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc_feature

| LOCATION: 1..6138

| OTHER INFORMATION: /label- AGL5_promoter

| OTHER INFORMATION: /note- "Nucleotide sequence of the AGL5

US-09-349-677-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4; Length 6138;
                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/09349677

Patent No. 6288305

GENERAL INFORMATION:

APPLICANT: Yanofsky, Martin F.

APPLICANT: Ferrandiz, Cristina

TITLE OF INVENTION: Seed Plants Characterized by Delayed

NUMBER OF SEQUENCES: 24

CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                           3619 CCCCAACTTGAAGTGGAGAAAATAACAATCAAAAATTTTC 3574
                                                                                                                                                                                                 538 CTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTC 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/349,677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.4%; Score 38; DB 4
ilarity 51.8%; Pred. No. 2.7;
Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-UD 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/067,800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-L
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-6949
INPORMATION FOR SEO ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 6138 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
```

g ò

```
379 ITTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCA 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     439 ACAAAATTTCTCTIGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGGAGTA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            792 TCCTCTTTGCATCTAGGGATATCAAATATAACAATATCCTCATAATTATACAGTCTACAT 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carmen Rodriguez, Paralegal, Arnold, White & Durkee
       DALE, James L.
HARDING, Robert M.
PARTION: DNA Sequences of Banana Bunchy Top Virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                / Match 5.4%; Score 37.8; DB 1; Length 1110; Local Similarity 52.9%; Pred. No. 2.1; nes 81; Conservative 0; Mismatches 72; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7, Application US/08705937
Patent No. 5981841
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Conner, Timothy W.
TITLE OF INVENTION: EARLY SEED 5' REGULATORY SEQUENCE
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: Carmen Redriguez, Paralegal, Arnold, Whit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
SOFTWARE PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,186
FILING DATE: 24-FEB-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: JEFFERY, Donald D.
REGISTRATION NUMBER: 19,980
REGISTRATION NUMBER: 19,980
TELEPOMMUNICATION INFORMATION:
TELEPOMMUNICATION INFORMATION:
TELEPAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210
COMPUTER: TRADBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATION: PATEMENT OF PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                499 TTATCGATGGATTTTCTTCTTTTAATTAAAC 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSE: Foley & Lardner
STREET: 3000 K Street, N.W.
CITY: Washington, D.C.
COUNTRY: USA
ZIP: 20007-5109
COMPUTER READBALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 1110 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
                                                                          TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TOPOLOGY: circular
US-08-202-186-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-705-937-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
3679 GGTGAAATGAACATGAGCTGTTAATAGCTGGAAACGTATAGAAAAACGGAAATGACAAGT 3620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      379 TITICCITACAIGGAATAACIGCATICIIGGAIATAITCCAAITAACACAAATAAAAICA 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   439 ACAAAATȚTCTCTTGAAAGTTCCGGAGAAAACTCCAATCTCCACAATTGGATATTGGAGTA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     793 TCCTCTTTGCATCTGGGAATATCAAATATAACTATATCCTCATAATTATACAATCTACAT 734
                                                                                                                                                                                                                                                                             US-08-202-186-16/c

Sequence 16, Application US/08202186

PREACH NO. 5756708

GENERAL INFORMATION:
APPLICANT: RARAN, Mirko
APPLICANT: BURNS, Thomas M.
APPLICANT: DINE, James L.
APPLICANT: HARDING, Robert M.
TITLE OF INVENTION: DNA Sequences of Banana Bunchy Top Virus
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY & LAIGHER
STREET: 3000 K Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                538 CTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTC 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTE READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,186
FILING DATE: 24-FEB-1994
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71611/102 FIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       499 TTATCGATGGATTTTCTTCTTCTTTAATTAAAC 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 5.4%; Score 37.8;
Best Local Similarity 52.9%; Pred. No. 2..
Matches 81; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: JEFFRRY, DONBIE D.
RECISTRATION NUMBER: 19,980
REFERENCE/DOCKET NUMBER: 71611
TELECHOMURICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEFAX: 202 672 5300
TELEFAX: 904136
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 1103 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 14, Application US/08202186
Patent No. 5756708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: KARAN, Mirko
APPLICANT: BURNS, Thomas M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid_STRANDEDNESS: single TOPOLOGY: circular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 20007-5109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
US-08-202-186-14/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TOPOLOGY:
US-08-202-186-16
```

a å 셤 ò

```
515 TTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATC 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 10660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-09-041-886-16
Sequence 16, Application US/09041886
Sequence 16, Application US/09041886
GENERAL INFORMATION:
APPLICANT: Bredesen, Dale E.
APPLICANT: Rabladeh, Sharroz
TITLE OF INVENTION: Proapoptotic Peptides, Dependence
TITLE OF INVENTION: Polypeptides and Methods of Use
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37.4; DB 2; Length 1 Pred. No. 4.1; 0; Mismatches 41; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     575 AAAATATTCAAAATGAAATAATGAAGCCACTAAAACTCAACAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/041,886
                                                                                                      NAME: MCCOTMBCK, Myra H.
REGISTRATION NUMBER: 36,602
REFERENCE-DOCKET NUMBER: 110.00030120
TELECOMMUNICATION INFORMATION:
TELEFRAN: 612-305-1227
TELEFRAX: 612-305-1228
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 10660 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
FILING DATE: 28-JUN-1994
CLASSIFICATION: 435
TORNEY ARCHAUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 16:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 5.3%;
Best Local Similarity 60.2%;
Matches 62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 10660 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
936..3384
                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: UR
                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
COCATION:
US-08-267-803B-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1276 TITIAATITAATITATATAAACTIGATATIAAATATAAAAAATGATGTTATIAAATG 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 CATT-ATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTC 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        132 GAAATTAAATTTGAGCTTGGCTAGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATC 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13 AGATTTTTTTTTTTTTACCTATTTCAATTAGTTTCTTTGATTCAAACGATGCAAAGT 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1393 TTTGTTTATATTTGAGATTTGGAAGGTGTAAGTCTCCAAAAAGTTCTTATTTTTGT 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192 CTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTAT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8, Application US/08267803B
Factort No. 5834183
GENERAL INFORMATION
APPLICANT: Chung, Ming-yi
APPLICANT: Cophbi, Huda Y.
TITLE OF INVENTION: Gene Sequence for Spinocerebellar Ataxia
TITLE OF INVENTION: Type 1 and Method for Diagnosis
WINBER OF SEQUENCES: 85
CORRESPONDENCE ADDRESS:
ADDRESSEE: Mueting, Reasch, Gebhardt & Schwappach, P.A.
STREET: P.O. Box 581415
CITY: Minneapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 5.4%; Score 37.8; DB 2; Length 2030; Best Local Similarity 53.2%; Pred. No. 2.4; Matches 126; Conservative 0; Mismatches 107; Indels 4
                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: NICOLAS G. Barzoukas.
REGISTRATION NUMBER: 38,823
REFERENCE/DOCKET NUMBER: 30,803
REFERENCE/DOCKET NUMBER: 30,300
REFERENCE/DOCKET NUMBER: 30,304
REFERENCE/DOCKET NUMBER: 30,304
REFERENCE/DOCKET NUMBER: 30,304
TELECOMMUNICATION INFORMATION:
TELEFHONE: (713) 789-2679
INFORMATION FOR SED ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 55458-1415
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/705,937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 2030 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-267-803B-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-705-937-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

ö

7.4 1101 12 CNSO0FYG AL071206 7.3 987 12 CNSO0X30 AL077186 7.3 759 12 CNSO07BZ AL066674 7.3 1101 12 CNSO0FVE AL071298	12 CNSO07EV AL067078 12 CNSO050XV AL4411257 12 CNSO03DX AL064587 12 CNSO167M AL103902 12 CNSO14AC AL103902 12 CNSO07MC AL03902	7.2 805 7.2 1101 7.2 886 7.2 886	7.1 604 12 BHL05157 BHL05157 7.1 64 12 CNSO7DKY AL071865 7.1 928 12 CNS0051S AL059553 7.1 931 12 CNS0051S	7.1 1176 12 CNSO3R83 7.1 1101 12 CNSO03BD 7.0 949 12 CNSO4AIH 7 0 1029 12 CNSO1AEM	7.0 109 12 CNSO05RL ALGOMANIA ALGORATOR ALGORA	ALIGNMENTS	CNS0039G NN Drosophila mel BACR08K10 of F	<pre>fly), genomic survey sequence. A AL063921 AL063921.1 GI:4941778 GSS.</pre>	×		BP 191 91006 EVRY cedex - FRANCE (E-mail : segret@genoscope.cns.fr - Web : www.genoscope.cns.fr Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).	
c 18 c 19 20 21	0 0 0	8 6 0 A 8 6 6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 8 8 8 8 2 4 10 0	0 38 0 38 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9			RESULT 1 CNS0039G LOCUS DEFINITION	ACCESSION VERSION KEYWORDS	SOURCE	REFERENCE AUTHORS TITLE JOURNAL	COMMENT	FEATURES
5.1.3 Compugen Ltd.	: Search time 1235.45 Seconds (without alignments) 7647.311 Million cell updates/sec	.accgcatcctacagaaaagc 700	sər	rs: 27472414						results predicted by chance to have a l to the score of the result being printed, of the total score distribution.	Description	AL063921 Drosophil AL175696 Tetraodon AL099642 Drosophil AL071865 Drosophil AL06312 Drosophil AL06362 Drosophil AL06370 Drosophil AL06392 Drosophil AL06499 Drosophil AL10678 Drosophil AL10678 Drosophil AL10679 Drosophil AL10679 Drosophil
GenCore version 5.1 (c) 1993 - 2002 Com	using sw model 2002, 23:27:34 ; Se (with 7647.	-09-881-556-3 0 gaattcggcacgagatttt	Gapop 10.0 , Gapext 1.0 13736207 seqs, 6748477542 residues	hits satisfying chosen parameters enoth: 0	ength: 2000000000 minimum Match 0% Maximum Match 100% Listing first 45 summaries	::* em_estba:* em_esthum:*	em_estin:* em_estou:* em_estou:* em_estou:* em_esto:*	<pre>gb_est1:* gb_est2:* gb_htc:* qb_qss:*</pre>	p	io. is the number of results predict reater than or equal to the score o derived by analysis of the total sc	SUMMARIES Length DB ID	1101 12 CNS0039G 1092 12 CNS0039G 11190 12 CNS020K7 836 12 CNS020K7 1101 12 CNS01000 1101 12 CNS0100K 1101 12 CNS002FG 1101 12 CNS002FG 1101 12 CNS002FG 1101 12 CNS003FG 1101 12 CNS015FA 1200 12 CNS016CO 1101 12 CNS016CO

~

```
Similarity
                                                                           Unpublished
                                                                                          3 (bases Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | | ||||
ATAAAAA 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       656 ACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sednence.
                                                                                                                                                                                                                                                                                                                  383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL206908
                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CNS020N7/C
LOCUS
                                                                                                                                                                                                                            source
                                                                                                                     TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   416
                                                                                          REFERENCE
                                                                                                        AUTHORS
    AUTHORS
                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                              FEATURES
                                              TITLE
                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N AL175696
AL175696.1 GI:7813753
GSS; genome survey sequence.
Tetraodon nigroviridis.
SM Tetraodon nigroviridis
Eukaryota: Metazoa: Chordata: Craniata; Vertebrata; Euteleostomi;
Actinopterygii: Neopterygii: Teleostei; Euteleostei: Neoteleostei;
Acanthomorpha: Acanthopterygii: Percomorpha: Tetraodontiformes;
Tetraodontidae: Tetraodon.
E 1 (bases 1 to 1092)
S Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C.,
Bouncau, L., Billault, A., Quetler, F., Saurin, W., Bernot, A. and
                                                                                                       ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CNSO20K7 1092 bp DNA linear GSS 12-MAY-2000 Tetraodon nigroviridis genome survey sequence T7 end of clone 222L11 of library G from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Charaterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961 HHCHMYHMMHMYMYCCHYXCTCHTHATTHYHYMCTCYHYCTWHTYWTAYWWAWTAHAMTT 1020
                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                   378
                                                                                                                                                             79 TIGITITAAATCCAGATGGATCCGGAATTTTGAAAACATTTCTACTAAATTCGAAATTA 138
                                                                                                                                                                                                                                                    139 AATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTGATA 198
                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                          318
                                                                                                        Gaps
                                                                                                                                 19 TITITITITITACCIAITICAATIAGITICITIGAITCAAACGAIGCAAAGICAITAI 78
                                                                                                                                                                                                            |:||: ::| ::: :| :: :| :: :| : : : |
603 AHTTWYHWYTYAAWHWTWWAWHWTTYTAA-YXYYYCMYYYHYMHHHAHAHA
                                                                                                                                                                                                                                                                                                             199 GGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAACAT
                                                                                                                                                                                                                                                                                                                              662 AAWWITHIWWIHAYHWAIYHYYYWWCAAMACMCTHICHKCYYYYHHYTAHHITHTHHWYAH
                                                                                                                                                                                                                                                                                                                                                                                         GTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAAAATTTCTCTTGAAAGTTCCGGAGAAACTCCAATCTCCAATTGGATATTGGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HHTHMCMCHHHHHCTCHHHHTMYHMTHWHWHWHWHWHWHWHWHWHTWMTTWTTMTTMAMMCCMMH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTATCGATGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACT
                                                                                                       ;
;
                                                                           Length 1101;
                              503 others
                                                                                                     Indels
                                                                        9.2%; Score 64.2; DB 12; 17.6%; Pred. No. 0.51;
                                                                                                    255; Mismatches 212;
                              ų
                              202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  АТИМИМИНИМАНИАТИМИМИМИМИТАМИА 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAATAATCAAGAATCAAAATATTCAAAA 587
/clone="BACR08K10"
/note="end : TET3"
64 c 131 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 1092)
                                                                                                     Matches 100; Conservative
                                                                                         Similarity
                              Ø
                              201
                                                                         Query Match
                                                                                         Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
ORGANISM
                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     439
                                                                                                                                                                                                                                                                                                                                                                                                                                 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
CNS020K7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                           ORIGIN
                                                                                                                                  ö
                                                                                                                                                             g
                                                                                                                                                                                          ò
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                    å
                                                                                                                                                                                                                                                                                                             ç
                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

```
Direct Submission

Direct Submission

Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases

This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetracdon nigroviridis
genome. For more information, please take a look at

http://www.genoscope.cns.fr/Tetracdon.

1. 1092

1. 1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNSO2ON7 1190 bp DNA linear GSS 14-MAY-2000 Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone 153PO4 of library G from Tetraodon nigroviridis, genomic survey
                                                                      Human gene number estimate provided by genome wide analysis using
Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL206908.1 GI:7865727
GSS; genome survey sequence.
Tetraodon nigroviridis.
Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Roest-Crollius,H., Jaillon,O., Dasilva,C., Bouneau,L., Fisher,C.,
Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,F.,
Saurin,W. and Weissenbach,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COAG222CF06LP1~end : T7*
113 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236 IIGIGITITCIATACAAAAACAIGITTIGAAAAGAAIGAAGCACAITGICTIAAACCCIT 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296 TAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         356 ATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           476 CICCACAAITGGATAITGGAGTATTAICGAIGGAITTICITCTICTITAAITAAACAIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  765 WWWWAAAAWAAAWWTUTAWTTTTAWWATWAWTTTTTTAAAWAAANAWTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCAATTAACACAAAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         536 GCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  596 TGAAGCCACTAAACTCAAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1092;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                           /organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="222L11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ᇉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 61; DB :
Pred. No. 1.6;
                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_ib="G"
/clone_ib="G"
/note="Genoscope sequence
/note="Genoscope 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1190 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8.7%;
                                                                                                                                           (bases 1 to 1092)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 157; Conservative
```

us-09-881-556-3.rst

```
AL099642.1 GI:5611253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 193; Conserv
                                                                                                                                                                                                                                                                         fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                                   Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       482
                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                              RESULT 4
CNS01100
                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                   a
                                                 à
                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetracodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetracodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ï
Actinopterygil; Neopterygil; Teleostei; Euteleostei; Neoteleostei; Acanthoorpha; Acanthopterygil; Percomorpha; Tetraodontiformes; Tetraodontidae; Tetraodon.

1 (bases 1 to 1190)

1 (bases 1 to 1190)

2 (bases 2 to 1190)

Bouncau, L., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C., Bouncau, L., Billault, A., Quetler, F., Saurin, W., Bernot, A. and Weissenbach, J.
                                                                                                                                                                                                                      Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                                                                                                                                         2 (bases 1 to 1190)
cost-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,
Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,
Saurin, W. and Weissenbach, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80 TGTTTTAAATCCAGATGGATCCGGAATTTTGAAAACATTTCTACTAAATTCGAAATTAA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    941 ATATWTATATATATATWKTATATATAWTWTATATTNTAWWNTATATANATATTWTTAT 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140 ATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTGATAG 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20 TITITITICITITACCTATITCAATTAGTITCTTIGATTCAAACGAIGCAAAGTCAITAII 79
                                                                                                            Charaterization and repeat analysis of the compact genome of freshwater pufferflsh Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="G"
/note="Genoscope sequence ID : COAG153DH02SP1-end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      642 TITITAWIWATATITATAWATITWITWITWIWWWATWWAATAWAATAWAAANNTAWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200 GAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAAATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTTGGTTCTGAGAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              380 TITCCTTACATGGAATAACTGCATTCTTGGATATTATTCCAATTAACACAAATAAAATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       440 CAAAATTTCTCTTGAAAGTTCCGGAGAAACTCCAAATCTCCACAATTGGATATTGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582 AAWAATTAAAWATTWAAATTTTAAAAAATATTTTTAAATATWTTNAAAATTNTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      500 TATCGATGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64; Mismatches 313; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="153P04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 55.2; Pred. No. 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.98;
                                                                                                                                                                                                                                                                       (bases 1 to 1190)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              229 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similaria, Matches 206; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PUC-Or1"
                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                    Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                               REFERENCE
                                                                AUTHORS
                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                              TITLE
                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission Submission Submitted (23-JuL-1999) Genoscope - Centre National de Sequencage : Submitted (23-JuL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr )

Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - This Brosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                          Drosophila melanogaster genome survey sequence T7 end of BAC BACONONIS of DrosBAC library from Drosophila melanogaster (fruit fly), genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357
302 CGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       362 TAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAAT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182 TATTTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGT 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    242 TTTCTATACAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCG 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCAC 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTTATAAACATGCGCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 836)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 836;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Drosophila melanogaster"
/plasmid="pBeloBAC11"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88
                                                                                                            462 TTTTAAAMAAWAVVVVWMWVSSSSAMASSSMGATTAGCAACCAA
                                                                            560 GAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        No. 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.8%; Score 54.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_11b="DrosBAC"
/clone="BACN05N18"
/note="end : T7"
a 58 c 42 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22;
```

ï

Ø

909

GSS 26-JUL-1999

linear

Insecta;

g

ò 셤 RESULT 5 CNSOODKY/C DEFINITION

ò g ORGANISM

ACCESSION VERSION KEYWORDS SOURCE AUTHORS TITLE JOURNAL

COMMENT

REFERENCE

```
Web: www.genoscope.ons.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDEP) - http://www.edgp.ebi.ac.uk - . This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqrefêgenoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster genome survey sequence SP6 end of BAC
BACN03G04 of DrosBAC library from Drosophila melanogaster (fruit
fly), genomic survey sequence.
       TATTATATWAWATATTWWTATTWAWTATAAAATWWTAWWTTTAAWTAAWTAAWAATTAA 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190 TCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310 ATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   430 ATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGAT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      547 AAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370 AATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      250 CAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Inse
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomopha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative 195; Mismatches 217; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .1101
/organism="Drosophtla melanogaster"
/plasmid="pselobAC11"
/db_xref="taxon.7227"
/clone_lib="brosBAC"
/clone="BACN03G94"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.8%; Score 54.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1101 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="end : SP6"
108 c 131 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:5609990
                                                                                                                                                                                                                                                                                   607 AACTCAACAAATCCAGAA 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 19.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: ::: :::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL098379.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
CNS0100X/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                       à
                                                                                                                                                                           g
                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L SUBMITTED 1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr : Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial Ecost digestion of Drosophila DNA provided by the BDGP from the isogenic strain v2; on bw sp, the same strain used for the BDGP's pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSS 04-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster genome survey sequence T7 end of BAC # BACR27A24 of RPCI-98 library from Drosophila melanogaster (fruit fly), genomic survey sequence.
418 AAAATWTTAAATTTATATAAAAAGWTTATATWTATAAAGAA-TAAATWTTCAAATAT 476
                                                                                                       307 AGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATT 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       486
                                                                542 AAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGC 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATATIGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAAG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    367 CIGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Inse
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 928)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          191 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Drosophila melanogaster"
/db_xref="texon:7227"
/clone_lib="RPCI-98"
/clone="BACR27A24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches 143;
                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                    602 CACTAAACTCAACAATCCAGAATCAGGTGGGAATA 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.8%; Score 54.8; 1
28.9%; Pred. No. 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                928 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="end : T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:4948170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL071865.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Senoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CNS00DKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
```

ö

ö

Length 1101;

others

909

source

FEATURES

BASE COUNT ORIGIN

Matches

셤 ò 셤

ò

427 755 487

á

g

ò

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNS00EVL/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                   602
                                                                                                                                                                                                                                                                                                                                                                                                                                           734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                               ð
                                                                                                    g
                                                                                                                                             ò
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission

L Submitted (102-JUN-1999) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Geremination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).

The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see hittp://www.fruitfly.org The BDGP brosophila melanogaster BAC library was prepared by Kazutoyo Geoegawa and Aaron Mammoser in Pleter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain vise for the BDGP's pland by to order individual BAC clones, the entire library and how to order individual BAC clones, the entire library and how to order individual BAC clones, the entire library and thut://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                       CUSSOUGHB 1101 bp DNA linear GSS 03-JUN-1999
Drosophila melanogaster genome survey sequence TET3 end of BAC #
BACR01A24 of RPOI-98 library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ::::|::::|:::|:::|
| AMMAHAMAYMMTMAMHAWWCTNHTWBHAWAMAMHAMWHAWWAHAWAACHHHMWAAM 479
                                                                                                                                                                                                                                  AMAHWMMWCAAAAWAWAWAAAWAHAWWHAHTMCWAHAHAAWAHHAYAHAWMTCMCCHCMC 419
МАМНАМОМАМАМАМИССИМСКСКУМУСТМАНТНИМНИНИМНТНАННААНТИМААС 599
                                                                                                                       550 ATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAAC 609
                                                                                                                                                                                                        610 TCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCCTCAT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365 ITCTGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAA 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Drosophija melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pteryota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                       Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 54.6; DB 12; Length
; Pred. No. 15;
51; Mismatches 192; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism-"Drosophila melanogaster"
/db_xref-"taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512 t
                                                                                                                                                                                                                                                                                                                   HCMCTCACACNCAYMCACCCCMAAYAAAA 390
                                                                                                                                                                                                                                                                                             CCAGTTGTTAGACCGCATCCTACAGAAA 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note-"end : TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="BACR01A24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AL063632.1 GI:4938680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 153; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
                                                                                                                                                                                                                                                                                                                                                                                                               CNS000BB/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
658
                                                                                                                                                                 538
                                                                                                                                                                                                                                                  478
                                                                                                                                                                                                                                                                                             670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                             g
                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                         ò
                                                                                                                       õ
                                                                                                                                                                                                          ò
```

```
Laberted (02-JUN-1999) Genoscope - Centre National de Sequencage : Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage : PP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila and melanogaster BAC library was prepared by Kazutoryo Ossogawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain v2: nbw spp, the same strain used for the BDGP's and how to order individual BAC clones, the entire library or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNSODEVL 1101 bp DNA linear GSS 04-JUN-1999 Drosophila melanogaster genome survey sequence T7 end of BAC: BACR29B23 of RPCI-98 library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
854 aaaaaaatwaaaaataaatwaaaawwaaawwwatawawataawaatwaaa 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                        CACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAAT 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoā; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapa
                                                                                                                                                                                                                  AGAAAATGGCCACTTGAATAATCAAGAATCAAAATAT ---TCAAAATGAAATAATGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1101
/organism="Drosophila melanogaster"
/db_xref="taxon:7227"
/clone_lib="RPCI-98"
/clone="BACR29823"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCTCATCCAGTTGTTAGACCGCATCCTACAGAAAAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            АМАААААТТАМАТТНСМАААТМААМСААААНААМАМС 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      299 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.8%; Score 54.6; [ 31.5%; Pred. No. 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      fly), genomic survey sequence. ALO69706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="end : T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL069706.1 GI:4949849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 180; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genoscope
```

g

ò

셤

ö g ð g ò

ò

윱

ð g ö g à a õ

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lubrited (02-JUN-1999) Genoscope - Centre National de Sequencage : Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutcyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP From the Isogenic strain y2; cn bw sp, the same strain used for the BDGP's Pl and EST libraries. A more detailed description of the library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GSS 03-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster genome survey sequence T7 end of BAC # ARCRO6614 of RPCI-98 library from Drosophila melanogaster (fruit Alo62437
                                                                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                                                                                                               805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         435 ATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACAATTGGATATTGG 494
15 ATTTTTTTTTTTTTCCTATTTCAATTAGTTTCTTTGATTCAAACGATGCAAAGTCA 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterzygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                         255 ACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315 ATGACTITIGGTICTGAGAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGAA
                                                                                                                                                                                                                                                                                                      195 GATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     375 TATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      684 WAAATTATTAATTAWWAATWAWTTATTAATAAWTAATTAAATTATAAAATTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         624 МАААААТАТТТТТТТТТТАТАТИАМАТТТАТАМАТТААТАТАТАМТТИТАААТТWTTAA
                                                                                                                                                                                                      135 ATTAAATTTGAGCTTGGCTTGATAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTATTATCGATGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               555 CACTTGAATAATCAAGAATCAAAATATTCAA 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  504 WWINITITIMATIWATAWITITIMAWAWA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AL062437.1 GI:4940698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
CNS002FG/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
```

```
CNSO145U 1101 bp DNA linear GSS 26-JUL-1999 Drosophila melanogaster genome survey sequence T7 end of BAC BACN11016 of DrosBAC library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (13-JUL-1999) Genoscope - Centre National de Sequencage:
BP 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr
- Web: www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC and Genevieve Payan. It has been constructed in the vector
                          can be
                                                                                                                                                                                                                                                                                                                                                                                                                  1064 ITTTTTTTTTTWIAAFTTTTTTWTATATTWAATTTTTTTAMTATTAWWTTATTWAATTTA 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          945
                                                                                                                                                                                                                                                                                                                                                                       TCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                          417 CCANTTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterrygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

I (bases 1 to 1101)
1004 TATAWITITAIWAWAAAATITAMIAATIATATAAAATAAWITITWIAAATWATITAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                944 TAAAAAWWAAAATTATAAAAATAAWAAAAAWTATTTATWAWAATTAATTAATATTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 537 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA
                                                                                                                                                                                                                                                                                    Length 1101;
                                                                                                                                                                                                                       others
                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                     /organism="Drosophila melanogaster"
/db_xref="taxon:7227"
/clone_lib="RPCI-98"
                                                                                                                                                                                                                       93
                                                                                                                                                                                                                                                                                    7.7%; Score 53.8; DB 12;
11.5%; Pred. No. 20;
                                                                                                                                                                                                                                                                                                                               27; Mismatches 152;
                                                                                                                                                                                                                       Ļ
                                                                                                                                                                                                                     422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1101 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fly), genomic survey sequence.
                                                                                                                                                                                                                 100 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                        /clone="BACR06D14"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AL103740.1 GI:5615351
                                                                                                                                                                                                                                                                                                        41.58;
                                                                                                                                                                                                                   138 c
                                                                                                                                                                                                                                                                                                                             Matches 127; Conservative
                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | :|
764 AAATWA 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       657 CACAAA 662
                                                                                                                                                                                                                     348
                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                           Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CNS0145U/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                       357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
```

/organism="Drosophila melanogaster"

g

g ò g ò a ð g ò g ò

ò

```
69
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                         Best Local
                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                       23
                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNS00EVL
                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submitseion

Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
- Web : www.genoscope.cns.fr)
- Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).
The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Razutovyo Osogawa and Aaron Mammoser in Pleter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the 1809genic strain y2; cn bw 9p, the same strain used for the BDGP's PI and EST libraries. A more detailed description of the library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster genome survey sequence TET3 end of BAC # BACROBALO of RPCI-98 library from Drosophila melanogaster (fruit AL063921
                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                     369 GAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACA 428
                                                                                                                                                                                                                                                                                                                                                           AATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCCAATCTCCACAATTGGA 488
                                                                                                                                                                                                                                                                                                                                                                                           300 AAWAAAAAWAATAAAATAATAATAATWWTATTAAATWTWTWTTATTTWTAATTAT 241
                                                                                                                                                                                                                                                                                                                                                                                                                              489 TATTGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAAGAA 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAA 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAGCCTCA 668
                                                                                                                                                                                                                309 AATAAAATGACTTTTGGTTCTGAGAAGACTTAGCGACAACTCTCCAATCTTCTAATTCT 368
                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Ins
Pterygota; Neopiera; Endopierygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                                                                                                                                                              ö
                                                                                                                                           Length 1101;
                                                                                       280 others
                                                                                                                                                                              Indels
                                                                                                                                                                              Mismatches 214;
                                                                                                                                           DB 12;
                                                                                       ų
                                                                                                                          Score 53.8; DF
                                                                                       358
/plasmid="pBeloBAC11"
/db_xref="taxon:7227"
/clone_lib="DrosBAC"
/clone="BACN11016"
                                                                                       4
                                                                 /note-"end : T7"
                                                                                                                                                                            14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fruit fly.
Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AL063921.1 GI:4941778
                                                                                                                                       7.78;
                                                                                       123 c
                                                                                                                                                                            Matches 133; Conservative
                                                                                                                                                              Similarity
                                                                                       ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope
                                                                                       336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669 T 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                           Query Match
                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
CNS0039G/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                         429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
```

```
CNSODEVL 1101 bp DNA Linear GSS 04-JUN-1999 Drosophila melanogaster genome survey sequence T7 end of BAC: BACR29B23 of RPCI-98 Library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mall : segrefégenoscope.cns.fr
                                       ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1096 WGDDTWDRDTRKDDWDWTKWWTWWKDRADDRRWAGDADRWAWDDGAGTWWTATWWWWWWW 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         293 CTTTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAGACTTAGCGACAACTCT 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353 CCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATA 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            413 TATTCCAATTAACACAAATTAAATTCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTC 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGATTCAAACGATGCAAAGTCATTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        113 AAACATTTCTACTAAATTCGAAATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCT 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1036 WATWDTWWDKWWWATAAKTDTAWTWWRTAWRADWAGRDRGAGKRDRDAATDADGAGRRD 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        916 GAGDKDDDGKGKDADDDTDGTKDDDDKDKDKWDDWDKAKGTWGDATWAWAATDWWWGWADA 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856 DWWTWDAAADDWWADDRWDAWAWKWDDAWAWGARTADRRDWGDRAGKRGGARKRRDRKRA 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :: :: :: :: :| || |::: :|: || || DDKRDAADDRDDAATWTTTTTTTTTTDTDDWKWKTDTWTTWAADRTWDRDDDDDRDRAGTA 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRKWRRTWKRRWKRRDTRWDDADADDTARDDRRRRGDGADAGKGKKTGRKRRRDRATW 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           676 DRIDAWWADAAWWITIDIDDDDDDKRDRRRKGARRRRRITARAAWDWWWWAWDWAKWDW 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGAGGTGATATTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          233 CGCTTGTGTTTTCTATACAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                        Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATT 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            others
                                                                                                                                                                                                                                                                                                    503
                                                                                                                                                /organism-"Drosophila melanogaster"
/db_xref="taxon:722"
/clone_lib-"RCI-98"
/clone="BACR08x10"
                                                                                                                                                                                                                                                                                                                                                                                        7.6%; Score 53.2; DB 12;
1larity 13.0%; Pred. No. 24;
Conservative 251; Mismatches 210;
                                                                                                                                                                                                                                                                                                    ų
                                                                                                                                                                                                                                                                                                    202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fly), genomic survey sequence. AL069706
                                                                                                                                                                                                                                                             /note="end : TET3"
64 c 131 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fruit fly.
Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AL069706.1 GI:4949849
                                                                                                                        .1101
                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genoscope
                                                                                                                                                                                                                                                                                                    201
```

4

Nov

```
CNS0145P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
                                                                     LOCUS
DEFINITION
                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                     RESULT 13
CNS017KX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
CNS0145P
LOCUS
                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
- Web: www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of prosophila DNA provided by the BDGP from the isogenic strain v2; on bw sp, the same strain used for the BDGP's In and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be located the library found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 CGATGCAAAGTCATTATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACTAAATTCGAAATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATTGGATATTGGAGTATTATCGATGGAT-TTTCTTCTTCTTTAATTAAACATGCGCCTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       362 TAATICIGAATATTATCTTTCCTTACATGGAATAACTGCATICTTGGATATATTCCAAT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               422 TAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCAC 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AATTCGGCACGAGATTTTTTTTTTTTTACCTATTTCAATTAGTTTCTTTGATTCAAA 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCTATACAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATITITIATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                   7.5%; Score 52.4; DB 12; Length 1101; 33.2%; Pred. No. 32;
                                                                                                                                                                                                                                                                                                                                                                        232 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                 /organism="Drosophila melanogaster"
/db_xref="taxon:7227"
/clone_lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   318;
                                                                                                                                                                                                                                                                                                                                                                        299 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                   87; Mismatches
                                                                                                                                                                                                                                                                                                                                                                      6 09
                                                                                                                                                                                                                                                                                                                                         /clone-"BACR29B23"
                                                                                                                                                                                                                                                                                                                                                  /note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                      91 c
                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 33.2
Matches 202; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1092 WAWATAWW 1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTAAA 608
                                                                                                                                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                             FEATURES
                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
When I wave genoscope. Case is a sequence was carried out as part of a collaboration of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk . This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
CNS017KX 1101 bp DNA linear GSS 26-JUL-1999
Drosophila melanogaster genome survey sequence SP6 end of BAC
BACN37F10 of DrosBAC library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSS 26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       213 GAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAAACATGTTTTGAAAAGAAT 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      153 TIGATAAATGGTAGTIGGCTCGGAGGTGATATITITATCCTIGATAGGAAACACGCTCTT 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       273 GAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAG 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |: : || | || : : || || 845 TAMMAHWTTTTTTCCMYMYA 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              333 AAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGG 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        725 ТТСМҮААААЙТНИТТҮТҮҮСНАМАМАКСМТТТТҮТҮҮГТТТАМАМААҮАММАСМСННАС 784
                                                                                                                                                                                                                                               Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTT
                                                                                                                                                                            fruit fly.
Drosophila melanogaster
Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Inse
Fukaryota; Metazoa; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Drosophila melanogaster"
/plasmid="pBeloBAC11"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76; Conservative 116; Mismatches 138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.5%; Score 52.4; 23.0%; Pred. No. 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1025 ATWYTYYATTCYWHYMAHTMYHCCMCMMCM 1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAAGTTCCGGAGAAACTCCAATCTCCACA 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                  fly), genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="DrosBAC"
/clone="BACN37F10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="end : SP6"
84 c 159
                                                                                                                               AL108171.1 GI:5628475
                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pBeloBAC11.
```

```
351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98;
                                                                                                                             GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
 RESULT 15
CNS016CO/c
LOCUS
                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                DEFINITION
                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                              Web: www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration of this BAC-end sequence was carried out as part of a http://www.edgp.ebi.ac.uk. Brosophila melanogaster BAC library (Dros BAC) was made by Alain Billand at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                   Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqrefêgenoscope.cns.fr
Drosophila melanogaster genome survey sequence T7 end of BAC BACN11G11 of DrosBAC library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTAAACCCTTTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  712 TTATATWITTWAATTITATATTIWANAT-ANTITITITITITITITITITITITIT 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         344 GACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCAT 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGG 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               224 TTATTCAATCGCTTGTGTTTTCTATACAAAACATGTTTTGAAAAGAATGAAGCACATTG 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                         Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Ptcrytyota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

    (bases 1 to 1043)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              536 YTTTTTTTTTTTTTTTTTTTTATAWATAWWTATWTATATAAAAATAMTATATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAAAACTCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             524 AATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          644 CTCAGAACCAAAACACAAAGCCTCATCCAGTTGTTAGACCGCATCCTACAGAAA 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1043;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         167 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                     /organism-"Drosophila melanogaster"
/plasmid-"pBeloBAC11"
/db_xref-"taxon:7227"
/clone_llb-"DrosBAC"
/clone="BACN11G11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67; Mismatches 228;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 52.2; Pred. No. 36;
                           fly), genomic survey sequence. ALI03735
                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 g
                                                                                                         Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.5%;
                                                             AL103735.1 GI:5615346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-"end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 175; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          1, .1043
                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                          fruit fly.
                                                                                                                                                                                                                                                                                                                                                                               pBeloBAC11
                                                                                                                                                                                     Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
DEFINITION
                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $04
                                           ACCESSION
                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                     AUTHORS
                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
ö
               GSS 26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                  Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk -, This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billand at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
Drosophila melanogaster genome survey sequence T7 end of BAC and SEALISCO of DrosbAC library from Drosophila melanogaster (fruit fly), genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 ITATTTGTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGAA 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135 ATTAAATTTGAGCTTGGCTTGATAAATGGTAGGTTGGCTCGGAGGTGATATTTTATCCTT 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195 GATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAA 254
                                                                                                                                                                                                        Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15 ATTTTTTTTTTTTTTTAACCTATTTCAATTAGTTTCTTTGATTCAAACGATGCAAAGTCA 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961 ATTAAATTWAAAAWWWTTTTWTTRTTWWWAATTAATTWTTAAATTTTTCGTTAWAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021 ATAWITIWIAIWIWITAWIWIRIWIWAAAAAAAAAAAWITITIWWITIAAAAITAWAARAWAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           melanogaster'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ed. No. 33;
Mismatches 125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 52.2; Pred. No. 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            255 ACATGTTTTGAAAGAATGAAGCACATTGTCTT 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2, 2002, 01:47:13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .1200
/organism="Drosophila me
/plasmid="pselobAcll"
/db_xref="taxon:7227"
/clone_lib="DrosBAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone-"BACN15E04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note-"end : T7
                                                                                                                                     AL106578.1 GI:5622626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: November
Job time : 1251 45 cc--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 98; Conserv
                                                                                                                                                                                      fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oBeloBAC11
                                                                                                                                                                                                                                                                                                                                           Genoscope
```

			•	 •
				•
		\$. 		
				,
•				
		en e		
			, in the second	;
	en e			
			* * * .	
				•
				v
				•

```
INV 01-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Simonsen, J.N., Kramer, M., Lowden, C. and Wilkins, J.
Direct Submission
Direct Cubmission
Direct Submission
Manitoba, 730 William Ave, Winnipeg, MB R3E 0W3, Canada
NCBI staff are still waiting for submitters to provide appropriate feature information.
AE178459 Cryptospo
AL049185 Plasmodiu
AC007926 Trypanoso
U36523 Magnaporthe
AC016068 Homo sapi
AC044851 Homo sapi
AC099851 Homo sapi
AC079427 Nus muscu
AC079427 Nus muscu
AC06281 Plasmodiu
AC06281 Plasmodiu
AC4656 Dictyoste
AC06281 Plasmodiu
AC4656 Dictyoste
AC06281 Plasmodiu
AF46609 Sictyoste
AC06281 Plasmodiu
AF46609 Sictyoste
AC06281 Plasmodiu
AF361475 Dictyoste
Continuation (4 of
                                                                                                                                                                                                                                                                                                                                                                                                              Botrytis
Dugesta p
Sequence
Sequence
Drosophil
Plasmodiu
Homo sapi
                                                                                                                                                                                                                                                                                                         Danio rer
Homo sapi
Homo sapi
                                                                                                                                                                                                                                                                                                                                                     Plasmodiu
Plasmodiu
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapi
Plasmodiu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Arabidops
Dugesia p
Sequence
                                                                                                                                                                                                                                                                           Homo sapi
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapi
Homo sapi
                                                                                                                                                                                                                                             Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ното зарі
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ношо
                                                                                                                                                                                                                                                                                                        AL606723 1

AC021317 1

AC065140 1

AC065140 1

AC063189 1

AC063189 1

AC063189 1

AC110675 1

AC110675 1

AC121313 4

AC348524 5

AC348524 1

AC063133 1

AC06313 1

AC0631 1

AC06313 1

AC0631 1

AC06313 1

AC06313 1

AC06313 1

AC06313 1

AC06313 1

AC063
                                                                                                                                                                                                                                            AX277889 :
AX323566 :
AC022851 I
                                                                                                                                                                                                                                                                                        AX345308 SAL606723 D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AX346860 S
AC006194 A
AF201321 D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX348875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cryptosporidium parvum.
Cryptosporidium parvum
Eukaryota; Alveolata; Apicomplexa; Coccidia; Elmeriida;
Cryptosporidiidae; Cryptosporidium.
1 (bases 1 to 1310)
Simonsen, J. N., Kramer, M., Lowden, C. and Wilking, J.
Neutralising antigen 2 recognized by human immune sera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1310 bp mRNA 11
Cryptosporidium parvum unknown mRNA sequence.
AF178459
AF178459.1 GI:9957266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                                                                                                               PFMAL13P2_3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRBKPGEN
AC020767
AC023133
AC013349
AC009998
                                                                                                                                                                                                                                             AX277889
AX323566
                                                                                                                                                                                                                                                                                                                                                                                                                              AF201315
AX346295
                                                                                                                                                                                                                                                                                                                                                     AC005140
AF126719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSA329294
                                                                                                                                                                                   DDISAS1A
                                                                                                                                                                                                                                 AX346099
                                                                                                                                                                                                                                                                                                                                                                                                   AC005308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AX346539
                                                                                                                                                                                                                                                                                           AX345308
                                                                                                                                                                                                                                                                                                                                                                                   AC083839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX347323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 1310)
                                                                                                                                                                                                               8.4 77835
8.3 9539
8.3 9539
8.3 653120
8.3 114783
8.3 114783
8.3 127211
8.2 16478
8.2 16478
8.2 5489
8.2 6494
8.2 6494
8.1 18893
8.1 18893
8.2 6494
8.1 18883
   1310
110000
155204
1993
126038
70332
                                                                                                       117193
12029
235183
5772
199551
                                                                                                                                                                                                   5191
77835
6183
9539
9539
81120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74412
172770
143585
182690
14006
91589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.4
57.2
54.8
54.4
54
                                                                                                                                                     52.6
52.2
52.2
52.2
                                                                                                                                                                                                                                                                                                                                                                                                                              500.200.8888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
AF178459
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOUNCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
      0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 0 0
                                                                                                      ; Search time 864.101 Seconds (without alignments) 15087.634 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                 1 cctcaaatggtgaacatcaa.....aaaaaaaaaaaaaactcgag
                                                                                                                                                                                                                                                                                                         3595312
                 GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
                                                                                                                                                                                                                                                                          1797656 segs, 10463268293 residues
                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                         23:24:39
                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                             nucleic search, using sw model
                                                                                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_htg_hum:*
em_htg_inv:*
em_htg_other:*
em_htgo_inv:*
                                                                                                       1, 2002,
                                                                                                                                                                                                                                                                                                                                      length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length DB
                                                                                                                                                                   US-09-881-556-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gb_ov: *
gb_pat: *
gb_ph: *
gb_pl: *
gb_rc: *
gb_rc: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_sts:*
em_un:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gb_sy:*
gb_un:*
gb_v1:*
em_ba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          em_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_hum: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                em_pat:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                            gb_ba:
gb_htg:
gb_in:
gb_om:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_in:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_mu:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_om: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_or:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_pl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_ro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_v1:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_ov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                              GenEmbl:*
                                                                                                           November
                                                                                                                                                                                                                                                                                                                                       sed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                               Scoring table:
                                                                             •
                                                                                                                                                                                                                                                                                                                                    Minimum DB
Maximum DB
                                                                             OM nucleic
                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
8
```

Result

~

Page

```
(bases 1 to 377835)
                                                                                                                                                                                                                                                                                                                                                                                        Matches 142;
                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
AC007926/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                 TITLE
JOURNAL
REFERENCE
            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                       FEATURES
                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377835 bp DNA linear HTG 11-AUG-1999 chromosome 13 strain 3D7, *** SEQUENCING IN
                                                                                                                                                                                                                                                                                                                                                                          1174 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                 61 ACGAATCAAGTICAAATCATCCTTCTGTGACAGTICCAGATACTGGATCAGTICAAATCT 120
                                                                                                                                                                                                                                          873
                                                                                                                                                                                                                                                                                         933
                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                        993
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                               Gaps
                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROGRESS ***, in unordered pieces.
AL049185.
AL049185.4 GI:5731883
HTG; HTGS_PHASE1.
Plasmodium falciparum.
Plasmodium falciparum
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                                                                1 CCTCAAATGGTGAACATCAAGAATCTGGTTCAGAGCAAGCCCCTATTACCTCACCAGAAA
                                                                                                                                                                                                                  CCTTCTGTTACTATTCCAGAGACTGGATCAGACTCAGATCACGCGCCCTTGTGACAATTCC
                                                                                                                                                                                                                                                                AGAGACTGGATCAGTTCAAATCATCTTCTGCTACTATACCAGAAACAGGATCCAGCTCAG
                                                                                                                                                                                                                                                                                      874 AGAGACTGGATCAGTTCAAATCATCTTCTGCTACTATACCAGAAACAGGATCCAGCTCAG
                                                                                                                                                                                                                                                                                                              ATCACACTCTGCTACTTCTCCAGAAGAATGGACTCAGAACGTTACCAATCACTTCT
                                                                                                                                                                                                                                                                                                                                                             301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC
                                                                                                                                                                                                                                                                                                                                                                                                             361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS PFMAL13P2 Accession AL049185
                                                                                               .;
0
                                                                     Length 1310;
                                                                                             0; Indels
        /organism="Cryptosporidium parvum"
/db_xref="taxon:5807"
1 253 c 206 g 381 t
                                                                  Query Match 99.0%; Score 617; DB 3; Lk Best Local Similarity 100.0%; Pred. No. 1.8e-113; Matches 617; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              377835 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           110000
210000
310000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1294 AAAAAAAAAAAAA 1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    200001
300001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Begin
                                   ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence split into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFMAL13P2_3
PFMAL13P2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fragment Name PFWAL13P2_0 PFWAL13P2_1 PFWAL13P2_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 2
PFMAL13P2_0
WPCOMMENT
 source
                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
                                             ORIGIN
                                                                                                                     õ
                                                                                                                                           a
                                                                                                                                                                  ò
                                                                                                                                                                                         셤
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         å
```

```
Submitted (15-MAR-1999) P. falciparum Genome Sequencing Consortium, The Sanger Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge (2B10 1SA, UK)
On Aug 12, 1999 this sequence version replaced gi:5531337.
For more information about this sequence or the Malaria Project, see http://www.sanger.ac.uk/Projects/P_falciparum. IMPORTANT: This sequence is unfinished and does not necessarily represent the correct sequence. Work on the sequence is in progress and the release of this data is based on the understanding that the sequence may change as work continues. The sequence may be contaminated with foreign sequence from E.coli, yeast, vector,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG 17-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases I to 155204)
El-Sayed,N.M., Ghedin,E., Song,J., Larkin,C., Wanless,D., Jones,K., Petterson,J., Hou,L., Zhao,H., Mason,T., Militscher,J., Pal,G., Van Aken,S., Utterback,T., Khalak,H.G., Gerard,C., Leech,V., Ullu,E., Malville,S., White,O., Adams,M.D., Donelson,J.E. and Fraser,C.M. Trypanosoma brucei GUTatio.1 RPC193-3H15 BAC genomic sequence.
Bowman,S., Churcher,C., Harris,B., Harris,D., Lawson,D., Quail,M.
and Barrell,B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24936 CCACCTTAATGAAAATCATGATAAGAAGAGTGAAAATTTTAATTTGAATCTAATATATCA 24995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             515 AGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCA 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      335 CCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCT 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Order of segments is not known; 800 n's separate segments.

* NOTE: This is a 'working draft' sequence.

* This record will be updated with the finished sequence

* as soon as it is available and the accession number will

* be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395 TCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  455 TAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9.3%; Score 58; DB 2; Length 110000; llarity 50.4%; Pred. No. 0.02; Conservative 0; Mismatches 140; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC007926 155204 bp DNA linear Trypanosoma brucei chromosome II clone RPC193-3H15, IN PROGRESS ***, 1 ordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /chromosome="13"
36545 c 35558 g 130270 t 43238 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25176 AAATAATAATAAAAAAAAAAAATAA 25217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .377835
/organism="Plasmodium falciparum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:5833"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC007926.8 GI:14787210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /strain="3D7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTG; HTGS_PHASE2.
Trypanosoma brucei.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Trypanosoma brucei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Trypanosoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               phage etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         132224 a
```

m

```
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC016068
AC016068.3 GI:912
HTG; HTGS_PHASE0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              608 AAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
96112748
8664503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
AC016068
                                                                                                                                             FEATURES
                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                           Submitted (28-JUN-1999) The Institute for Genomic Research, 9712

Burnett Submitted (28-JUN-1999) The Institute for Genomic Research, 9712

Medical Center Dr. Rockville, MD 20850, USA

On Jul 17, 2001 this sequence version replaced gi:12746529.

**NOTE: This is a "working draft" sequence. It currently

**consists of 1 contigs. Gaps between the contigs

** are represented as runs of N. The contigs

** are represented as runs of N. The contigs

** to the gaps between them are based on estimates that have

** provided by the submittor.

** This sequence will be replaced

** by the finished sequence as soon as it is available and

** the accession number will be preserved.

** This sequence will be preserved.

** This sequence as contigonal to the state of the preserved.

** This sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear PLN 13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGU36923 1993 bp DNA linear PLN 13-DEC-200
Magnaporthe grisea host-species specificity (Pwll) gene, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77227 ATGATAATAATAATAATAATGATAATGATAATGATAATGATAATGATAATGATAATGATA 77168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77167 GGATAGTGTTGTGAGTGTGTATATACGAATAATATAAAAGAGGGGGTAATAATAATAACA 77108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382 ATACACTAAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTT 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    502 AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Magnaporthe grisea
Eukaryota; Fungi, Ascomycota; Pezizomycotina; Sordariomycetes;
Sordariomycetes incertae sedis; Magnaporthaceae; Magnaporthe.
1 (bases 1 to 1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kang, S., Sweigard, J.A. and Valent, B.
The PWL host specificity gene family in the blast fungus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 155204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Magnaporthe grisea
Mol. Plant Microbe Interact. 8 (6), 939-948 (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9.2%; Score 57.4; DB 2; Length 1 llarity 47.6%; Pred. No. 0.025; Conservative 0; Mismatches 186; Indels

    155204
    /organism="Trypanosoma brucei"
/isolate="GUTat10.1"

                 2 (bases 1 to 155204)
E1-Sayed, N.M., Khalak, H. and Adams, M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                         31603 c 32329 g 42525 t
                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:5691"
/chromosome="II"
                                                                                                                                                                                                                                                                                                                                                                                                                          /clone-"RPC193-3H15"
                                                                                                                                                                                                                                                                                                               Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U36923.1 GI:1045530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Magnaporthe grisea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 169; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                           48747 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
               REFERENCE
AUTHORS
                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
MGU36923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
```

```
ACCU16068 126038 bp DNA Linear HTG 13-JUL-2000
Homo saplens chromosome 4 clone RP11-431B5 map 4, LOW-PASS SEQUENCE
SAMPLING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product-*pwll protein"
/product-*pwll protein"
/db_xref-"di-1d4533"."
/db_xref-"di:1045531"."
/db_xref-"di:1045531"."
/translation-*martalvnLPapRVVRRIDSGAPMISNFIALLILLHYCRFNWK
FNKT.PLYILAFFSTAVIAGGRKWTKVIYNDKGPREGSISIRKGAEGDFNGPGYPG
GPDRWYVKHEDNGNIKGHPGYFRLGPDDKEDKGDNQYYSRNGYHVGDGPAEYONHGGG
GPDRWYVRGPRQUINGKRPGPDGCGHIM"
313 c 372 g 530 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
Kang, S., Sweigard, J.A. and Valent, B.

Kang, S., Sweigard, J.A. and Valent, B.

Direct Submission
Submitsed (22-SEP-1995) Seogchan Kang, Biology, University of New Mexico, Albuquerque, NM 87131, USA
Sweigard, J.A. Plant Cell 7, 1221-1233, 1995.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 126038)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1719 AAATAAAAATAAAAATAAAAATAAAAATAAAATAAGAGTAAAACTAAACACAAA 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                368 TAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGC 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            428 AGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAA 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308 AAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGG 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   488 AAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548 TGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9.2%; Score 57.2; DB 8; Length 1993; 49.0%; Pred. No. 0.062; ative 0; Mismatches 158; Indels 0
                                                                                                                                                                                                                                                                                                                               /gene="Pwl1"
join(43. .111,502. .558,772. .1215)
/gene="Pwl1"
/note="PWL1 host species specificity gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 4, clone RP11-431B5 Unpublished
                                                                                                                                                                                                              1. .1993
/organism-"Magnaporthe grisea"
/db_xref-"taxon:148305"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:9126605
```

in length

in length in length in length in length

100 bp

COMMENT

in length in length in length

```
32819 32818.16: Cont. 9 1100 bp 32845 3844: gap of 100 bp 33845 3844: gap of 100 bp 33845 3844: gap of 100 bp 33845 3484: gap of 100 bp 34735 34834: gap of 100 bp 34735 34834: gap of 100 bp 35872 35791: cont.g of 918 bp in length 35792 36789: cont.g of 918 bp in length 37798 37891: gap of 100 bp 37896 37897: gap of 100 bp 38820 38919: cont.g of 918 bp in length 37896 37897: gap of 100 bp 38820 38919: gap of 100 bp 38820 38919: gap of 100 bp 38820 38919: gap of 100 bp 38820 39954: gap of 100 bp 40961 40960: gap of 100 bp 40961 40960: gap of 100 bp 40961 40960: gap of 100 bp 42834 42837: cont.g of 888 bp in length 42838 42937: gap of 100 bp 42838 42937: gap of 100 bp 42838 42937: gap of 100 bp 42838 42837: cont.g of 908 bp in length 4384 44850: cont.g of 908 bp in length 4384 45983: gap of 100 bp 44851 44850: cont.g of 908 bp in length 4384 45983: gap of 100 bp 44851 44850: cont.g of 908 bp in length 45884 45983: gap of 100 bp 44851 44850: cont.g of 908 bp in length 45884 45983: gap of 100 bp 44851 44850: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 44850: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 46883: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 44850: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 46883: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 46883: cont.g of 808 bp in length 45884 45983: gap of 100 bp 44851 46883: gap 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4762: gap of 100 bp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80 46979; gap of 100 bp 10 100 pp 10
                                                                                                                                                                       17971: gap of 100 bp
18858: contig of 887 bp in length
18958: gap of 100 bp
19690: contig of 732 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      p of 100 bp contig of 919 bp in length
                                                                                                                                                                                                                                                                                                                    1790: gap of 100 bp
20687: contig of 897 bp in
1787: gap of 100 bp
21671: contig of 884 bp in
1771: gap of 100 bp
22673: contig of 902 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ap of 100 bp 100 contig of 899 bp 10 ap of 100 bp 10 contig of 900 bp 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          p of 100 bp contig of 907 bp
                                                           contig of 887 bp
p of 100 bp
contig of 921 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     p of 100 bp contig of 892 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of 897 bp
                                                                   contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cont
33665: cr
16850:
                                                                                                                                                                                                                                                                                              20687:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  July gap of 24662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      con.
31699:
                                                                                                                                                                                                                                                                                                                                                                                       20787: gap of
21671: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28793: gap of 29700: conf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30699; cont
                                                                                                16950: gap of
17871: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26796: gap of
27710: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31799: gap of
32718: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29800:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27810:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24762:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25790:
                                                                                                                                                                                                                                                                                                                    19790:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                00400
                                                                                                                                                                           7872
                                                                                                                                                                                                            8859
                                                                                                                                                                                                                                                                                                                        9691
                                                                                                                                                                                                                                                                                                                                                                                           88908
                                                                                                                                                                                                                                                                                                                                                                                                                                                              21672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8694
8794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24763
25691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50887
50987
51917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9801
                                                Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreira, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, M., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Connor, P., Peterson, K., Pollara, V., Klley, R., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W. J., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ...... Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (20-NOV-1999) Whitehead Institute/MIT Center for Research, 320 Charles Street, Cambridge, MA 02141, USA On Jul 13, 2000 this sequence version replaced gi:6715901. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          * NOTE: This record contains 130 individual

* sequencing reads that have not been assembled into
contigs. Runs of N are used to separate the reads
and the order in which they appear is completely
arbitrary. Low-pass sequence sampling is useful for
identifying clones that may be gene-rich and allows
overiap relationships among clones to be deduced.
However, it should not be assumed that this clone
Hill be sequenced to completion. In the event that
the record is updated, the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
of 882 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
f 892 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp
of 900 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 bp
f 914 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              989: gap of 100 bp
1894: contig of 905 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp .
f 897 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
f 929 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 bp
900 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         00 bp
862 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
f 909 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   p of 100 bp contig of 884 bp in length p of 100 bp contig of 875 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13830 13929; gap of 100 bp 1330 14854; contig of 925 bp in length 14855 14954; gap of 100 bp in length 14955 15863; contig of 909 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             889: contig of 889 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 891 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2976: gap of 100
5 2876: contig of 8
7 2976: gap of 100
7 3868: contin 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ): gap of 10
10879: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center project name: L4278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center clone name: 431_B_5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     con.
: gap of
11863:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38: gap of 13829: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9: gap of
7908: con*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63: gap of
12838: con⁴
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2: gap of
6879: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8: gap of
8908: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8: gap of 
9870: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5882:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4868:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10979:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11963:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4968:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3968:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5982:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8008:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9008:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9970:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5883
5983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12839
                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
```

```
RESULT 6
AC044851
LOCUS AC044851 70332 bp DNA linear HTG 12-APR-2000
```

```
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
                                                                ACCESSION
                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTT 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           502 AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.8%; Score 54.8; DB 2; Length 126038; 38.5%; Pred. No. 0.085; Live 0; Mismatches 219; Indels 0;
13 53912: contig of 896 bp in length
13 53012: gap of
100 bp
14 54890: contig of 899 bp in length
15 54890: contig of 899 bp in length
15 54890: contig of 879 bp in length
15 5881: contig of 877 bp in length
16 55881: gap of
100 bp
15 55981: gap of
100 bp
16 58859: contig of 895 bp in length
16 58959: gap of
17 100 bp
18 58859: contig of 895 bp in length
18 58859: contig of 895 bp in length
18 56951: gap of
19 59855: contig of 895 bp in length
19 56851: contig of 893 bp in length
19 56861: contig of 893 bp in length
19 56861: contig of 893 bp in length
19 58851: contig of 894 bp in length
19 58861: contig of 898 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67938: gap of 100 bp
68973: contig of 935 bp in length
68973: gap of 100 bp
69883: contig of 910 bp in length
69983: gap of 100 bp
70890: contig of 907 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig of 940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70990: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72030: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71930:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 137; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
DETRITION None spleas chromosome 2 clone Rell-38209 mpp 2, LOW-PASS SEQUENCE ACCRESSION CACCASES: 1 CT-7543818

KENEAGON CACCASES: 1 CT-7543818

KENEAGON CACCASES: 1 CT-7543818

KENEAGON CACCASES: 1 CT-7543818

KENEAGON CACCASES: 1 CT-7543818

ELECTRIC STATE DELIBERIES: PERMANCES: CACCASES: CACC
```

```
19 10318: gap of 100 bp 11077: contig of 759 bp in length 1177: gap of 100 bp 11941: contig of 764 bp in length 12041: gap of 100 bp in length 12043: gap of 100 bp in length 1512834: contig of 793 bp in length 1512934: gap of 100 bp in length 135 12934: gap of 100 bp in length 135 12934: gap of 100 bp in length 13716: contig of 782 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          s; gap of 100 bp 1089; contig of 796 bp in length 1100 bp 1082; contig of 753 bp in length 1100 bp 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
f 777 bp in length
100 bp
f 775 bp in length
                                                                                                                                                                                   10 bp
794 bp in length
                                                                                                                                   0 bp
781 bp in length
                                                                                                                                                                                                                                         9439: gap of 100 bp
10218: contig of 779 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ap of 100 bp:
contig of 770 bp in length
ap of 100 bp:
contig of 766 bp in length
784 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16: gap of 100 bp
17193: contig of 777 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14: gap of 100 bp
23288: contig of 784 bp in length
98: gap of 100 bp
24152: contig of 754 bp in length
52: gap of 100 bp
25025: contig of 773 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05: gap of 100 bp
29365: contig of 760 bp in length
30244: contig of 770 bp in length
44: gap of 100 bp
144: gap of 100 bp
31111: contig of 767 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11: gap of 100 bp
31994: contig of 783 bp in length
94: gap of 100 bp
32861: contig of 767 bp in length
61: gap of 100 bp
33733: contig of 772 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33: gap of 100 bp 34590: contig of 757 bp in length 90: gap of 100 bp 35457: contig of 767 bp in length 57: gap of 100 bp 36323: contig of 766 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p of 100 bp contig of 764 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77: gap of 100 bp 20643: contig of 766 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
803 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46: gap of 100 bp
22414: contig of 768 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 bp
750 bp in Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36323: contig of 766 bp in length
23: gap of 100 bp
37184: contig of 761 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 bp
of 778 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of 7
p of 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28565: gap of 1
29365: contig of 29465: gan of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27655: contig of
27755: gap of 1
28505: contig of
contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig of
                                                                                                                                                                                                                  contig of
                                                   contig of
                                                                                                         contig of
                                                                                                                                                            contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8943 19042: gap of
9043 19777: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25: gap of
25903: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15452: cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ount: gap of
18089: حار
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cont
34590: ___
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         con.
; gap of
21546:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13816; gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15552: gap of
16316: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21646: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap of
                                                                                                                          7664: gap of
8445: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of
                                                                       6820: gap of
7564: co
                                                                                                                                                                                   8545: gap of
9339: co
                               : gap
6720:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26780:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18942:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14586:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14686:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24252:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18189:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22514:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30344:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32094:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33833:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26880:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32961:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36423:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35458 35557:
35558 35557:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31211
```

333 AACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAT 392 393 CTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAG 452 Gaps . 513 AAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTC GATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCG ö Score 54.4; DB 2; Length 70332; Pred. No. 0.11; 4930.
465: app 0.
50247: contig c.
50247: gap of 100 c.
5118: contig of 771 bp 1...
9 5128: gap of 100 bp
19 5297: gap of 100 bp
19 52946: contig of 749 bp in length
10 c.: gap of 100 bp
100 bp 0; Mismatches 160; Indels 45081: gap of 100 bp 45858: contig of 777 bp in length 45958: gap of 100 bp 46832: gap of 100 bp 100 bp 46832: gap of 100 bp 100 bp 47591: contig of 759 bp in length 781 bp in length 100 bp 749 bp in length in length in length in length 100 bp 797 bp in length in length in length in length in length bp in length in 9 39048: gap of 100 bp 12 3921: contig of 773 bp 1r 12 3921: gap of 100 bp 12 4054: contig of 773 bp 1r 14 4054: contig of 73 ap 1r 15 41558: contig of 764 bp 1r 100 bp 777 bp 38166: gap of 100 bp 38948: contig of 782 bp 59014: gap of 100 bp 59795: contig of 781 bp 59895: gap of 100 bp 46832: gap or 47591: contig of 759 contig of 797 contig of 761 48588: gap of 10, 49365: contig of 7 6 49465: gap of 10 6 50247: contig of 7 gap of 10 66: contig of 7 88: gap of 1 55459: contig of contig of contig of 47691: gap of 48488: con 55559: gap of 56340: con gap of 57289: gap of 58050: cont 58150: gap of Query Match
Best Local Similarity 44.8%;
Matches 130; Conservative 57189: 56440: 53681 55460 54589 453 ò a 셤 g à à

ö

```
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC099851 117193 bp DNA 11near HTG 22-NOV-2001
HOMO Sapiens chromosome 17 clone XX-97A12 map 17, LOW-PASS SEQUENCE
SAMPLING.
                                                                                                                                                                                                                                   01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 (bases 1 to 117193)
Birren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N.,
Anderson,S., Barna,N., Bastien,V., Boguslavkiy,L., Boukhgalter,B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 117193)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3122 AAAAAAAAAAAAAAAAAATTCTATAAAATTTAATAAATTTTCTTTTCATAACAAACCTAA 3063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Olek'A., Piepenbrock,C. and Berlin,K.
Diagnosis of diseases associated with development genes
Patent: WO 0200927-A 84 03-JAN-2002;
Epigenomics AG (DE)
Location/Oualifiers
1. 7041
//organism="synthetic construct"
//by anism="synthetic construct"
//botanism="synthetic construct"
//organism="synthetic construct"
//organism="synthet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 457 AAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAAG 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                517 AAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAA 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397 CAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAAGTTATGGGGAAAAGGATA 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337 AAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTC 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                   PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                          Score 54; DB 6; Length 7041;
Pred. No. 0.21;
0; Mismatches 145; Indels
                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo saplens chromosome 17, clone XX-97A12 Unpublished
                                                                                                                                                                                                                               AX344659 7041 bp Sequence 84 from Patent WO0200927.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC099851.1 GI:17047216
HTG; HTGS_PHASE0.
                                                                                                                                                                                                                                                                                                                                AX344659.1 GI:18492545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 49.3%;
Matches 141; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                synthetic construct
artificial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                     synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (sites)
                                                                                                                                                                                                                                                                                                    AX344659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AC099851/c
                                                                                                                                                                 RESULT 7
AX344659/C
                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

```
Brown, A. Camagrata, J. Campopiano, A. Chang, J. Choepel, Y. Calangelo, M., Callymore, A., Candratata, J. Candina, S., Collymore, A., Cook, A., Cook, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Fare, Erreira, P., Fitzugh, M., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Plerre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Illov, I., Johnson, R., Jones, C., Kamata, A., Karatas, A., Karatas, A., Karatas, A., Karatas, A., Karatas, T., Levine, R., Liu, G., MacLean, C., Macdonald, P., Major, J., Levine, R., Mathews, C., Macdonald, P., Major, J., Morphy, T., Naylor, J., Nguyen, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Nell, D., Oliver, J., Peterson, K., Phurkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Riebeck, M., Kiley, R., Schauer, S., Schupback, R., Saman, S., Severy, P., Spencer, B., Stanger, Thendore, J., Vell, R., Vo, A., Travis, N., Travis, N., Travis, N., Young, G., Vell, R., Vo, A., Hison, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zembok, L., Zimmer, A. and Zody, M., Travis, N., Zainoun, J., Zainoun, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------ Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
Camarata, J., Campoplano, A., Chang, J., Chazaro, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       * NOTE: This record contains 144 individual

* sequencing reads that have not been assembled into
contigs. Runs of N are used to separate the reads
and the order in which they appear is completely
arbitrary. Low pass sequence sampling is useful for
identifying clones that may be gene-rich and allows
overlap relationships among clones to be deduced.

* However, it should not be assumed that this clone
* Will be sequenced to completion. In the event that
the record is updated, the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (22-NOV-2001) Whitehead Institute/MIT Center Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using Repeatmasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/Repeatmasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
------- Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719 818: gap of 100 bp
819 1599: contig of 781 bp in length
1600 1699: gap of 100 bp
1700 2440: contig of 741 bp in length
2441 2540: gap of 100 bp
2541 3253: contig of 713 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 bp
f 697 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9/4/: Courts -- 100 bp 10548: contlg of 701 bp 1n length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp
f 720 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 bp
f 712 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
f 720 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 bp
f 719 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10648: gap of 100 up
11373: contig of 725 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  718: contig of 718 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
of 701 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
f 729 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp
of 696 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: L13244
Center clone name: 97_A_12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0: gap of
8927: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4974: gap of 5703: cor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3353: gap of
4054: co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5803; gap of 6522; co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9027: gap of
9747: co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1: gap
4874:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6622: gap
7318:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3: gap
8130:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4154:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7418:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8230:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9847:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2441
2541
3254
3354
4055
4155
4975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6623
```

œ

us-09-881-556-4.rge

```
contig of 732 bp in leng.

200 bp
218 14645: contig of 732 bp in lengt
100 bp
546 14745: gap of 100 bp
46 1579: gap of 100 bp
10 15579: gap of 100 bp
16316: contig of 737 bp in length
16416: gap of 100 bp
17109: contig of 693 bp in length
7209: gap of 100 bp
17945: contig of 736 bp in length
7209: gap of 100 bp
17945: gap of 100 bp
18759: contig of 736 bp in length
9: gap of 100 bp
18759: contig of 736 bp in length
1646: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9746: gap of 100 bp 20464: contig of 718 bp in length 0564; gap of 100 bp 21295: contig of 731 bp in length 1395: gap of 100 bp 2231; contig of 736 bp in length 2231; gap of 100 bp 2231; gap of 100 bp 2231; gap of 706 bp in length 22937; contig of 706 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4687: gap of 100 bp 11 length 25418: contig of 731 bp in length 5518: gap of 100 bp 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp 13782: contig of 723 bp in length 100 bp 14604: contig of 722 bp in length 04: gap of 100 bp 15428: contig of 724 bp in length 15428: contig of 724 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ap of 100 bp
contig of 720 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               up of 100 bp contig of 739 bp in length p of 100 bp contig of 780 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23767: contig of 730 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p of 100 bp
contig of 725 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10: gap of 100 bp 31240: contig of 730 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56: gap of 100 bp
37084: contig of 728 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
735 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 bp
706 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40473: gap of 100 bp
41192: contig of 719 bp in length
41292: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of 726 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig of 725 bp in length
p of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig of 728 bp in length
100 bp
of 714 bp
100 bp
of 698 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
  p of 10
contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig of 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44: gap of
39567: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22937; con+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cont
24587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .. gap of
35428: ~.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         con
32079:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         con. 37919:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       con.
; gap of
41192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21395: gap of
22131: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32959:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap of
                                                        gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5429 35528: gap of
5529 36256: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37085 37184:
37185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19746:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20564:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25518:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29685:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30510:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31340:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1605 34704:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36356:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7920 38019:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26343:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28859:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32179:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2960 33059
```

CGCCTTGTGACAATTCCAGAGCTGGATCAGTTCAAATCATCTTCTGCTACTATACCAGA 223 Gaps 224 AACAGGATCCAGCTCAGATCACACTCTGCTACTTCTCCAGAAGGATTGGACTCAGAA CGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAA TGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCA **ACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGT AAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAA** ö Length 117193; 8.7%; Score 5., 27.9%; Pred. No. 0.12; +ive 0; Mismatches 326; Indels 14673: gap of 100 bp 45417: contig of 744 bp in length 45217: gap of 100 bp 46228: contig of 711 bp in length 46228: gap of 100 bp 7118: gap of 100 bp 7138: gap of 100 bp 728: gap of 1 60 49559; gap of 50 100 bp 11 length 50 50304; contig of 745 bp in length 50 5121; contig of 715 bp in length 100 bp 1121; contig of 717 bp in length 100 bp 18: gap of 100 bp 55931: contig of 713 bp in length in length 56031: gap of 100 bp 56745: contig of 714 bp in length p of 100 bp contig of 749 bp 43833: gap of 100 bp 44573: contig of 740 bp 4284: contig of 77 (2984: gap of 43733: cr 17829 47928: 17929 4864 48748: Conservative 46328: 47138: 45517 44673 Query Match Best Local Similarity Matches 126; Conserv 8649 4 49560 50305 50405 51122 53538 54323 54423 55119 55219 55932 7039 51944 52877 164 464 284 404 524 62091 g g à à 셤 ò q δ δ qq ద ŏ ŏ

ö

AANAAAAAAAAAAAAAAAAAAAAAAA 62000 ATTGTCAACTCAAGTAAAAAAAAAAAAAAAAAA 615

584 62031

```
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAAAAAAAAAAAACT 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1428 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KGAYGYMHQLETTEGIEVAVMIGLAMGEGPRADSTEPLTSFRKLWWRLMFLFFSVISL
GIGLALVYFREETPFELERGRIESEKNILKKIYETDNVDEDLNAIKEAVEGNESAK
KNSLSLLSALKIPSTRVIILGGLLSGAOPTGINVLVSNSNELKEFLDSHLITILS
VWHTANVRLMFPRATTVIVEKLGRKTLLLWGCVGVLVAYLPFATANELNRSHEVKILS
IVATFWHIISTRAVSYGPVLMIYLHEMFPSEIKDSAASLASLVNWVCAIIVVFPSDIII
KKSPSILFIVFSVMSILFFFIFFIKETKGGEIGTSPYITMEERQKHMTKSVV"
complement(3799. 5049)
/gene="PFB0215c"
complement(3799. 5049)
/note="lidentified by sequence similarity; putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="protein with Egl-like 3'-5' exonucl. domain"
/protein_id="AAC71832.1"
/db_xref="cg1:3845126"
/db_xref="cg1:3845126"
/translation="MIKCIKNINTWRRNVRNVSYGYYNININEKIHKYFDNIDKRNN
IKYISDCKSCKECVBERNGNYNLLKDFNMKHIGLDIEGYKIGKYGIYSIIQICYEDI
YIFDIYKCDNVYLFINYIKDILECDDIIKVTHDCREDCSILYNQYNIHLKNILDTQVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YNLLLKNNNNYTNTYQISYDDLLKKYLFINNNHKIYFHKMITLDNYIYLKRPIMKELI
SKAAQDVIYLKFLILCILDKEIIKQKKREDGRKNKYVNDKQNNKIKQEKFDKTSNTLQ
SKGAISSFNNODLYHTKEIIQDIILHSKKYVNYQFLNSHIKDEKELQKGMILEGMYVS
CNNTKWILKLNMRKEQVILMYVQNHYEIGDIVKAVIVNFTRNDYINLGLYDEKILLLD
AQKYIPREEVLQNIQKFLLNEEKI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gardner, M.J., Tettelin, H., Carucci, D.J., Cummings, L.M., Aravind, L., Koonin, E.V., Shallom, S., Mason, T., Yu, K., Fujii, C., Pederson, J., Shen, K., Jing, J., Aston, C., Lai, Z., Schwartz, D.C., Pertea, M., Salzberg, S., Zhou, L., Sutton, G.G., Clayton, R., White, O., Smith, H.O., Fraser, C.M., Hoffman, S.L. et al.
Chromosome 2 sequence of the human malaria parasite Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product-"monosaccharide transporter"
/protein_id="AAC71831.1"
/db_xref="GI:3845128"
/tb_xref="GI:3845128"
/translation-"WTKSSKDICSENEGKKNGKSGFFSTSFKYVLSACIASFIFGYQV
                                                                              AE001381 12029 bp DNA 11near INV 06-NOV-1998 Plasmodium falciparum chromosome 2, section 18 of 73 of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SVLNTIKNFIVVEFEWCKGEKDRLNCSNNTIOSSFLLASVFIGAVLGCGFSGYLVOFG
RRLSLLIIYNFFFLVSILTSITHHFHTILFARLLSGFGIGLVTVSVPMYISEMTHKDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
Submitted (02-NOV-1998) The Institute for Genomic Research, 9712
Medical Center Drive, Rockville, MD 20814, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement(105. .1619)
/gene="PFB0210c"
/note="identified by sequence similarity; putative"
/codon_start=1
                                                                                                                                                                                                                                                                                                               malaria parasite P. falciparum.
Plaamodium falciparum
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
1 (bases 1 to 12029)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erratum:[[published erratum appears in Science 1998 Dec
4:282(5395):1827]]
2 (bases 1 to 12029)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Plasmodium falciparum"
//d_xref="taxon:5833"
//chromosome="2"
complement(105._.1619)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5564. .6843
/gene="PFB0220w"
join(5564. .5681,5897. .6843)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     falciparum
Science 282 (5391), 1126-1132 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="PFB0210c"
complement(105, .1610)
/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/gene="next"/g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
                                                                                                                                                                                                                                        AE001381.1 GI:3845124
                                                                                                                                                             complete sequence. AE001381 AE001362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gardner, M.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99021743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bource
RESULT 9
AE001381/c
                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
```

```
/gene-
/g
                                                                                                                                                                                                                          / CTAIN I ALLON- MSTILNEVKEONKANTLHIKNFIMENLKVTEEIKHDKDINNLAR

TEHBEIKELISSNGKRYPHEIKLIYELMKRIKGSTFPSKNDVLKKGOSFKRNKNIK

NILODSIKKKNIQIOKLLKOYILLKGYYRNCKKYROENELLKSFSFSKNONSYLKK

KYSPPHSRNRIYEYPYTKLLRRKRLRISHFKEDRYVIHKGPLTKKKKKKIIINKKY

TIYIYIYIYIYIYEPMYSPITIEFSFRIKSHSANSYNYHHKKKYKKRIJUNNKLLINLH

FKRYKEKYKKKKLHISSRRKDKRULDLYCKKKKEIIYTHLKKRYKINDNKLLINLH

FKRYKEKYKKKKKKKKKKKKKKKKKOKRULNISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EENILHKDEEENILYREEENILHKDEEENILHKEENILHKDEEENILYREEENILHK
BEANITEKTKAREVKKKTHTLRKKKKEKNELHDIDMEVETANDDDEDDEDDENDEN
KYEEKOKYNDEDGKERVSIDDWEECKRKMEDEVDKRENVSNIEEENILLDSKEONII
DYNKEKLISKEKKKKISRKIKKTIEDNKDIKENENPEITYDEKNIGKKEEYIIYEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
'note" identified by sequence similarity; putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539 TATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAAGT
                                                                       /product="ubiquinone biosynthesis methyltrans."
/protein_id="AAC71833.1"
/db_xref="GI:3845127"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.5%; Score 53; DB 3; Length 12029; Ilarity 61.0%; Pred. No. 0.3; Conservative 0; Mismatches 55; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product-"hypothetical protein"
/protein_id-"AAC71835.1"
/db_xref-"GI:3845129"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement(9054. .10994)
/gene="PFB0230c"
/note="predicted by GlimmerM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5375 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement(9054. .10994)
/gene="PFB0230c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNKEHNVITOKDNAKMDNIDEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               922 9
```

```
unknown length
of 13206 bp in length
unknown length
of 15570 bp in length
                                                                                                                                                                                                                                                                                                                                                      length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown length
of 15693 bp in length
unknown length
of 20276 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of 12974 bp in length
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 11348 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown length
of 22004 bp in length
                                                              bp in length
                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                      bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown length
of 8128 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp in length
                                                                                                                                                                                                                                                                                                                                                                                              length.
                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          f unknown length
g of 5389 bp in 1
f unknown length
g of 9006 bp in 1
                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength
                                            ength
                                                                                  ength
                                                                                                                                                              ength
                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown length
of 14843 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown 1
of 6018 b
                                                                                                                                                                                                                                        unknown
of 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 1015
                                                                                                      of 1106
                                                                                                                                                                                                                                                                                                                                      of 1145
                                                                                                                                                                                                                                                                                                                                                                            of 1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1703
                                                unknown
                                                                                  unknown
                                                                                                                    unknown
                                                                                                                                                            unknown
                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                      unknown
                                                                                                                                                                                                                                                                                                                                                            unknown
                                                                                                                                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 3019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 4237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 3510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 8574
                        contig
gap of
contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                  contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                              contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                              contig
gap of
gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
gap of
contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                          contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 235183: contig
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213179: 235183:
                                                                                                      24382:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      176910:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46716:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54170:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            192804
213080
213180
    20228
20328
20328
20328
221840
221840
22248
22548
32749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
22749
2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11031
12734
12834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46717
49736
49836
54171
57283
57583
62008
67245
67245
70855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85647
85747
91136
91236
100242
100342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121644
132992
133092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146298
146398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161968
162068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                      AC079427 235183 bp DNA linear HTG 01-SEP-2000 Mus musculus chromosome 16 clone RP23-121D10, WORKING DRAFT SEQUENCE, 50 unordered pieces.
                                                                                                                                                                                                                                                                                                          Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutherla; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 23518)
DOE Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Consensus quality: 155133 bases at least Q40
Consensus quality: 17576 bases at least Q30
Consensus quality: 186200 bases at least Q30
Consensus quality: 186200 bases at least Q30
Estimated insert size: 193300; agarose-fp estimation
Estimated insert size: 193300; agarose-fp estimation
Quality coverage: 3.62 in Q20 bases; agarose-fp estimation
quality coverage: 3.04 in Q20 bases; aum-of-contigs estimation.
* NOTE: This is a 'working draft' sequence. It currently
* consists of 50 contigs. The true order of the pieces
* is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown length
of 1142 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
op in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center clone name: RPCI-23_121D10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Web site: http://www.jgi.doe.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οį
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οĘ
                                                                                                              AC079427.1 GI:9958039
HTG; HTGS_PHASE1; HTGS_DRAFT.
house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig gap of co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
gap of
contig
gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center Project Name: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1508: 3050: 3150: 4292: 44392: 5589: 5589: 6833: 6933: 8413: 8513:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13703:
15550:
15650:
17389:
17489:
18685:
18785:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13603:
                                                                                                                                                                                                                                                                          Sequencing of Mouse
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10999:
11099:
12378:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1409
1509
3051
3151
3151
4293
4293
4393
66834
66834
6934
6934
1000
111100
112479
113404
113404
113404
113551
                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
RESULT 10
AC079427
LOCUS
                                                        DEFINITION
                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                ACCESSION
```

COMMENT

```
ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC006281
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5772 bp DNA linear INV 05-FEB-2002 Dictyostellum discoldeum serine protease/ABC transporter TagD AP466309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
2 (bases 1 to 5772)
Anjard,C. and Loomis,W.F.
Direct Submission
Submitted (08-JAN-2002) Biology Dept 0368, UCSD, 9500 Gilman Drive,
La Jolla, CA 92093, USA
Location/Qualifiers
                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                         444
                                                                                                                                                                                                                          325 CATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATA 384
                                                                                                                                                                                                                                                                                                                                                                                        564
                                                                                                                                                                       265 AGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTA 324
                                                                                                                                                                                                                                                                               385 CACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATG
                                                                                                                                                                                                                                                                                                                                   GGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAG
                                                                                                                                                                                                                                                                                                                                                                                      ATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         <243. .>5720
/gene="tagD"
/product="scrine protease/ABC transporter TagD"
/gene="tagD"
243. .5720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="similar to TagB and TagC"
/codon_start=1
/product="serine protease/ABC transporter TagD"
                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                          8.5%; Score 53; DB 2; Length 235183; 39.7%; Pred. No. 0.17; tive 0; Mismatches 213; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Mycetozoa; Dictyosteliida; Dictyostelium. I (bases 1 to 5772)
Anjard.C. and Loomis, W.F.
Evolution of the ABC transporters of Dictyostelium
                                                               /clone_lib-"RPCI mouse BAC library 23"
43034 c 50925 g 59494 t 10384 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .5772
/organism="Dictyostelium discoideum"
/strain="Ax4"
 1. .235183
/organism="Mus musculus"
/db_xref="taxon:10090"
/chrcmosome="16"
/clone="RP23-121D10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dictyostellum discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dictyostellum discoldeum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AF466309.1 GI:18496823
.235183
                                                                                                                                Best_Local Similarity 39.7
Matches 140; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "gene="
                                                                              40
                                                                             71346
                                                                                                                     Query Match
  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                          565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                      505
                                                                                                                                                                                                                                                                                                                                                                                                              14182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
AF466309
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                        ð
                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                     õ
```

```
SIADTGLOGSTANTERGENEY THROUGH TO THE TRANSPORT THE TOTAL TOTAL TOTAL TOTAL THROUGH THE TRANSPORT THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmodium falciparum chromosome 12 clone 3D7, *** SEQUENCING IN PROGRESS ***, 2 unordered pleces.
/protein_id="Aal74253.1"

/db_xref="G1:18496824"

/translation="MKSNTNIRVLLVSGLILIFIFLGIKFEFINKNNDKIGINRKLE
FSYFTKNNNNNNNNEKQDQLKNKROKRILLKNBIJDTNIKKNIKKNNOKNNNEEIFP
NFISRLLKSNDDMETQQFTYRKSHYTYQFKDHINDETREOFKQFLINTDIVLDEQPYQ
SHIVNYIPHDSFLVANDGSONLLSSKEWSWHIGEFFPSNKIHLNYNEKSIGLIPVYIK
LSDSTNSKLICHNENDELTSYNSKVKLTLINGKEIVYCNDESSSQSSCSLVS
EKLUYQWISEQSESNYIERSEKFQTANRLSFKAIFGTKAITUNDRIDIPLRGGOIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISENIGYALDNPTQEDIIEAAKLANAHEFIQSLPKQYDTMLTDGGNLSGGOKKRIAV
ARAICAKRKIMLLDEITAELDPESEEAINKSIKVLTRGHTVVWVAHKVAAVRDCDKIF
VLDKGQIVEQGTHNQLMAKKGKYYRMFAFSEDDDYAPLLVL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDAEYKKNKNKRNNGKMTTKLSNSPPLVGEGIDNNNNNNDNNINDDNNQQDPNNNNN
EIDDDGDDDGDDDEGEDENNNNNNDDPNDNNGIEMLTEKQLRKRRQMKKEFYKKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GISCLELNLIPSAYTELTECRGEIEFKNVSFCYPSRADVGVLYNIDLKFESGKCYGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPSGSGKSTLLELISRFYSLHPSGGKIYMDGIDIAKIRPSNLRSFVTNVHQHPFLFDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4665 AATAATGATAATAATAATGATGATGATAATAATCAGCAAGATCCAAATAATAATAAT 4724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         363 GAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAG 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGGAAGTAATC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       303 AGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAATGAAAATCATAATAATCAG 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Alveolata; Apicomplexa: Haemosporida; Plasmodium.
1 (bases 1 to 199551)
Hyman, R.W., Fung, E.L., Oin, F., Rowley, D., Mao, J., Tamaki, T.,
Kurdi, O.B., Conway, A.B. and Davis, R.W.
Plasmodium falciparum 3D7 chromosome 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 8.4%; Score 52.6; DB 3; Length 5772;
Best Local Similarity 51.5%; Pred. No. 0.42;
Matches 121; Conservative 0; Mismatches 114; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1971 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      malaria parasite P. falciparum.
Plasmodium falcipárum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                904 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC006281.8 GI:9797738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      708 c
```

(SAS1)

```
organism="Dictyostelium discoideum"
                   /db_xref="taxon:44689"
1095. 1706
/note="GTP-binding protein
                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAAAAAAAACT 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAAAATTATT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .5191
                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 150; Conserv
                                                                                                                                                                                                 929
                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sonrce
                                                                                                                                                                                                BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                            425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
AF361475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                    Fung, E.L., Qin, F., Tamaki, T., Kurdi, O.B. and Davis, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INV 27-APR-1993
                                                                                        CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db 130908 ATAGTAATACATCTGAACAACTTAACAATAGCAATAATAGCTTGAATAATTAGAAAATA 130967
                2 (bases 1 to 199551)
Hyman, R.W., Fung, E.L., Qin, F., Tamaki, T., Kurdi, O.B. and Davis, Direct Submission
Submitted (05-JAN-1999) Stanford DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, 94304, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340 AAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAATCTTCCAA 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                          On Aug 12, 2000 this sequence version replaced gi:8810457.

* NOTE: This is a 'working draft' sequence. It currently consists of 2 contigs. The true order of the pieces

* is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

* This record will be updated with the finished sequence as soon as if is available and the accession number will

* be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        400 ATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520 TTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DDISASIA 11near INV 27
D.discoideum GTP-binding protein (SASI) gene, complete cds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryotan, Micetozoa; Dictyostellida; Dictyostellum.

[ (bases 1 to 2145)
Saxe,S.A. and Kimmel,A.R.
SASI and SAS2, GTP-binding protein genes in Dictyostellum discoideum with sequence similarities to essential genes is Saccharomyces cerevisiae
Mol. Cell. Biol. 10, 2367-2378 (1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 199551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                              1 41526: contig of 41526 bp in length
7 41726: gap of unknown length
77 19951: contig of 157825 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                        200 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches 144; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db 130968 AFAAAATAAGAAAAATATAAATGAGAAAAATGTAAAACATGA 131010
                                                                                                                                                                                                                                                                                                                                                                 /organism="Plasmodium falciparum"
/db_xref="taxon:5833"
/chromosome="12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          580 CTAAATTGTCAACTCAAGTAAAAAAAAAAAAAAAAACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="PFYACB8-95"
/clone="3D7"
a 17543 c 19759 g 78852 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 52.6; DB
Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
1. .2145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M34456.1 GI:167874
GTP-binding protein.
D.discoideum, cDNA to mRNA.
Dictyostelium discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 49.1%;
Matches 139; Conservative
                                                                                                                                                                                                                                                                                   1
41527
41727
                                                                                                                                                                                                                                                                                                                                                                                                                                                        83197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
DDISAS1A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5191 bp DNA linear INV 03-MAY-2001 Dictyostellum discoideum double histidine kinase DhkD (dhkD) gene, AF361475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ľa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Academic press, San Diego (2001) In press
2 (bases 1 to 5191)
Anjard,C. and Loomis,W.F.
Direct Submission
Submitted (15-MAR-2001) Biology 0368, UCSD, 9500 Gilman Drive, Jolla, CA 92093, USA
Location/Qualifiers
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                       305 AACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGA 364
                                                                                                                                                                                                                                                                                                                365 AGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535 TAATAATAATAATAATAATAATAATAATAACAACCTTATTTGAAAATTCAAATTAAA 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTG 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 АААААААСААТАССТТТАСАТТТТААААТТААААТТСАТАААТААААССАТТАТААААА
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAA
                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                        8.4%; Score 52.2; DB 3; Length 2145; 47.6%; Pred. No. 0.6; tive 0; Mismatches 165; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dictyostelium discoideum.
Dictyostelium discoideum.
Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
( bases 1 to 5191)
Anjard, C. and Loomis, W.F.
The histidine kinases of Dictyostelium
HISTIDINE KINASES IN SIGNAL TRASNDUCTION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Dictyostelium discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       join(<436. .1082,1162. .>5155)
/gene="dhkD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                db_xref-"taxon:44689"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF361475.1 GI:13937002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'qene="dhkD"
```

```
ö
                                                                                      /translation-"mQDISTTTASTNYLKADGDTGAVFSITSQQQQIHYMRKQRPDHE
KTREELIEEINHLRAVSNSNKNARIMLDEMYQFVALLDVNGNLLDVNEPALQGGGMIR
                                                                                                               SSIQGIPFWDCSRWATSQENIDNVREAVHKASKGEFIRYETEIFGKSAGTEKITIDFS
LMPLFNDKGEVSLILPEGRNITEKRLGELEIERKNNELRSLYEKIKELDELKTQFFAN
                                                                                                                                                                                                                                                                                                                                 nnnnnnnnnnnnnnnnnnnnnnnnnnnnnntinnnhnnnnnn hh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTAT 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264 AAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCT 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAAT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAA 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS PFMAL13P2 Accession AL049185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tch 8.4%; Score 52.2; DB 3; Length 5191; sal Similarity 46.7%; Pred. No. 0.51; 165; Conservative 0; Mismatches 188; Indels 0
double histidine kinase DhkD".1082,1162. .5155)
                                                histidine kinase
                                                              /protein_id="AAK50005.1"
/db_xref="GI:13937003"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            110000
                                                                                                                                                                                                                                                                                                                                                                                                                                   677 g
/product-"double
join(436. .1082,1
                                                /product="double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence split into 4 fragments
Fragment Name Begin
PEMALI3P2_0 1
PFWALI3P2_1 100001
                                                                                                                                                                                                                                                                                                                                                                                                                                    706 c
                                                                                                                                                                                                                                                                                                                                                                                                                                    ø
                                                                                                                                                                                                                                                                                                                                                                                                                                   2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
PFMAL13P2_3
                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPCOMMENT
             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
PFWAL13P2_2 . 200001 310000
PFWAL13P2_3 300001 377835
Continuation (4 of 4) of PFWAL13P2 from base 300001 (AL049185 Plasmodium falciparum c
                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                      71263 TAACATGGCAAATAATAACCATTATAATAATGAAAAGAATTCAAATAATAATTATAGCAA 71322
                                                                                                                                                                                                                                                                                      452 GGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTC 511
                                                                                                                                                                                                                                                                                                                                                                                                             512 GAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTT 571
                                                                                                                                                                                                                                                392 TCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAA 451
                                                                                                                                                                 TAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAA 391
                                                                                                                         ö
                                                                              Length 77835;
                                                                            Score 52.2; DB 2; Length 7
Pred. No. 0.31;
0; Mismatches 143; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71503 AAATATAATAATTATTCACATGAATGTAATAGAAGTAAAA 71543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8.4%;
49.1%;
                                                                                Query Match
Best Local Similarity 49.1
Matches 138; Conservative
                                                                                                                                                                   332
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                               ò
```

Search completed: November 2, 2002, 01:53:29 Job time : 1610.1 secs THE PART WANTED TO SHAPE

```
1, 2002, 22:12:43; Search time 137.032 Seconds (without alignments) 7805.766 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1980.DAT: *
2: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1981.DAT: *
3: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1981.DAT: *
4: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1981.DAT: *
5: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1984.DAT: *
6: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1985.DAT: *
7: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1986.DAT: *
8: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1989.DAT: *
9: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1980.DAT: *
10: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1980.DAT: *
11: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1991.DAT: *
11: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1995.DAT: *
12: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1996.DAT: *
13: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
14: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
15: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
16: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
17: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
18: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
19: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
19: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
10: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
10: (SIDSI) goada ta/geneseq/geneseqn -embl/NA1999.DAT: *
10: (SIDSI) goada ta/gene
                                                                                                                                                                                                                                                                                                                                                                        US-09-881-556-4
623
1 cctcaaatggtgaacatcaa.....aaaaaaaaaaaaaactcgag 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3472872
5.1.3
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1736436 segs, 858457221 residues
       GenCore version
Copyright (c) 1993 - 2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                    OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N_Geneseq_032802:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length: 0
length: 2000000000
                                                                                                                                                                                                                               November
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                                                                                               Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

			æ			SUMMARIES	
Result No.		Score	Query Match	Query e Match Length DB ID	DB	D CI	Description
. 0	-	52	8.3	6183	24	ABL33197	Human immune syste
υ	7	25	8.3		22	AAS45347	Chemically pretrea
ບ	3	51.8	8.3		24	ABL32406	Human immune syste
υ	~	50.8	8.3		24	ABL33393	Human 1mmune syste
ပ	2	50.3	8.1			ABL34421	Human immune syste
U	9	50.2	8.1			ABL33637	Human immune syste
υ	7	49.8	8.0			ABL33958	Human immune syste
υ	89	9.6	8.0	5493	24	AAS61386	Human gene requlat
υ	6	49	7.9			AAS46539	Tumour Suppressor

THU TH	cally pr	Φ	alcip	Human immune syste	Tumour suppressor	Tumour suppressor	Human immune syste	ч	1mmune	1mmune	1.mmune	neurob]	Human immune syste	Human immune syste	1mm ne	æ	Human immune syste	Human 1mmune syste	Human metastasis a	Tumour suppressor	Plasmodium falcipa	Human immune syste	Human metastasis a	Tumour suppressor	Human immune syste	Human immune syste	Tumour suppressor	Human 1mmune syste	Human 1.mmune syste		Human immune syste	r e	Chemically pretrea	Tumour suppressor	Human immune syste	
297		Ē	-	ABL33149	AAS46608	AAS46559	ABL33808	AAS63345	ABL34139	ABL32864	ABL32116	AA194974	ABL33056	ABL32482	ABL33525	AAS46728	ABL34040	ABL33677	ABL34577	AAS46694	AAA70236			28	ABL32527	ABL34427	980	ABL34242	ABL33719	œ	ABL32267	113	3	AAS46561	ABL33810	
24	22	74	21	24	22	22	24	24	24	24	54	22	24	. 24	24	22	24	24	24	22	21	24	24	22	54	24	22	24	54	54	24	24	22	22	7	
614	10619	061	3567	5452	6767	6485	6485	7479	7924	8254	13249	819	8634	7134	6035	6277	6277	5379	5379	5413	5454	6070	6070	6591	7571	9209	σ	4	17934	5893	6419	4661	ന	13606	13606	
	•																		7.5		•						•	•	•	•	•			•	•	
	48.6			•		•	٠	•	48	47.8	47.8	47.6	47.6	47.2	47	47	47	9	46.8	ø.	ė.		ė.	ė.		•	ė.	•	9	ė.	•	é.	46.4	ė.	46.4	
10	11	13	13	14	15	16	11	18	19	20	21	22	23	24	25	56	27	28	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
ပ	ບ	υ		O	ບ	υ	U	O	O	O	υ		υ	U	υ	O	υ	O	υ	O		ပ	U	υ	ပ	υ	υ	U	υ	U	O	Ų	O	υ	U	-

ALIGNMENTS

RESULT 1

Human; immune system disease; cytosine methylation; antiasthmatic; antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhemmatic; antiarthritic; antidabetic; antipsoriatic; antinflammatory; cancer; eye disease; arteriosclerosis; anaemis; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease; Human immune system associated gene SEQ ID NO: 1170. BP, ABL33197/c ID ABL33197 standard; DNA; 6183 26-MAR-2002 (first entry) ABL33197; gene;

WO200200928-A2 Homo sapiens.

03-JAN-2002.

02-JUL-2001; 2001WO-EP07537.

30-JUN-2000; 2000DE-1032529. 01-SEP-2000; 2000DE-1043826.

(EPIG-) EPIGENOMICS AG.

Berlin K;

```
06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
       15-MAR-2001; 2001WO-EP02945.
                                                                                                                                                                                                                                                                                                                                                                     Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                              (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-602751/68.
                                                                          15-MAR-2000;
       NAME OF THE PARTY 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;;
                                                                                                                                                                                                                                                                                                                                                  The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid reluxaemia, Alzheimer's disease, AnDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell cycle; human; CpG dinucleotide; cytosine methylation; HIV; aging; human immunodeficiency virus; neurodegenerative disorder; solid tumour; graft-versus-host disease; glomerular disease; Lewy body disease; cancer; arthritis; arteriosclerosis; anti-HIV; neuroprotective; antiarthritic; immunosuppressive; antitumour; cytostatic; antiarteriosclerotic; ds;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chemically pretreated complementary DNA associated with cell cycle #26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               288 ACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAA 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312 AATACAAAAATTTCTAATATAAAATACTTTAAACTTCTCTCAAATTATCCGAT--AATT 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                             leic acid comprising fragment of chemically modified gene, useful diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              528 AAAAIGIAAAGTATCIGCAIIGAIAAAIAIGGCCIIAGCCAITICCAAAIAICIAAAIIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             348 AATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          408 AATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAATGGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

8.3%; Score 52; DB 24; Length 6183;
Best Local Similarity 49.4%; Pred. No. 0.014;
Matches 163; Conservative 0; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6183 BP; 1584 A; 230 C; 1532 G; 2837 T; 0 other;
                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1170; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           588 TCAACTCAAGTAAAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĸ
   Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAS45347/c
ID AAS45347 standard; DNA; 9539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
ϋ
                                                                                                                                                                                                                    cytosine methylation
Piepenbrock
                                                                      WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200168911-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCR prime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS45347;
   olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
```

g

ò 셤 셤

ò

a ò 셤

à

셤

ö

```
ä
                                                                                                                                                                                                                                              molecules associated with the cell cycle and specific PCR primers of the invention. The sequences are useful for detecting the methylation state of all CpG dinucleotides in a sequence and therefore for analysing associated diseases. By analysing cytosine methylations in the pretreated DNA, genetic and/or epigenetic parameters for the diagnosis and therapy of existing diseases or the predisposition to specific diseases can be ascertained. The parameters may be compared to another set of genetic and/or epigenetic parameters, the differences serving as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The sequences of the invention are useful for the diagnosis and therapy of HIV infection, neurodegenerative disorders, effectiversus-host disease,
                                                                                                                                                                                                                      Sequences AAS45296-AAS45520 represent chemically pretreated genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           252 CTACTICICCAGAAGAAGGAIIGGACICAGAACGIIACCAAICACIICIACAGAACAAAC 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
Designing primers and probes for analysing diseases associated with cytosine methylation state e.g. arthritis, cancer, aging, arteriosclerosis comprising fragments of chemically modified genes associated with cell cycle.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           312 TCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               432 GTGGAAAGTTATGGGGAAAAGGATAAAT-GGTTGATGGTGAGCAAGTAATCACTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               491 TGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372 TCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 9539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9539 BP; 2078 A; 121 C; 2281 G; 5059 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aging, glomerular disease, Lewy body disease, arthritis, arteriosclerosis, solid tumours and cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 8.3%; Score 52; DB 22; Le Best Local Similarity 48.1%; Pred. No. 0.015; Matches 177; Conservative 0; Mismatches 190;
                                                                                                                                                          Claim 1; SEQ ID No 52; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              290 AAAAAAC 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              611 AAAAAAAC
```

RESULT 3 ABL32406/c

20-SEP-2001,

us-09-881-556-4.rng

```
2329 TAAAAAAATATAAATATCCAAAAACAATAAAAAAATAACCAAAACCGTAATAAAACAAAA 2270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          297 TTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAAT 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                             ABL33393/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                237
                                                                                                               605
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                          셤
                                                                                                             ò
                                                                                                                                                 셤
                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2449 ATATAAACGCAAATATAAACGTAAAAAATCAAATTAAACAAAATTAAAAATTTAAAAACTAACC 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 AGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGGCAAGTAATCAC 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTG 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         305 AACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245 CACTCTGCTACTTCTCCAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAG 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidabetic; antipsoriatic; antilnflammatory; cancer, antilnflammatory; cancer, and Glisease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                     antlasthmat1c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 24; Length 6915;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6915 BP; 1577 A; 136 C; 1759 G; 3443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches 202; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; SEQ ID NO 379; 32pp + Sequence Listing; German.
                                                                                                                                                     cytosine methylation;
                                                                                                               Human immune system associated gene SEQ ID NO: 379.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 8.3%; Score 51.8; DB SIMIlarity 46.1%; Pred. No. 0.016;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Berlin K;
BP.
                                                                                                                                                     system disease;
ABL32406 standard; DNA; 6915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JUN-2000; 2000DE-1032529 01-SEP-2000; 2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUL-2001; 2001WO-EP07537
                                                                          (flrst entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 173; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                         WO200200928-A2
                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                        36-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                              03-JAN-2002
                                     ABL32406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425
```

_ _ _ _ _ _

= = = =

윱 ð 8 ò g ð

```
ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid trakaemia, Alzhaimer's disease, AnDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                TCAGATCACACTCTGCTACTTCTCCAGAAGATTGGACTCAGAACGTTACCAATCAC 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rising fragment of chemically modified gene, useful treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; immune system disease; cytosine methylation; antiasthmatic; antianeamic; cytositetic; nootropic; nentaneamic; cytositetic; nootropic; neuroprotective; anti-HV; anticonvulsant; ophthalmologici; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arterlosolorosis; anamaticate myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
545 CATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 6494;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1366; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6494 BP; 1929 A; 81 C; 1179 G; 3305 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              duman immune system associated gene SEQ ID NO: 1366,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 50.8; DB 24;
Pred. No. 0.026;
); Mismatches 202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8.28;
47.48;
                                                                                                                                                                                                                                                                                                                                         ABL33393 standard; DNA; 6494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUL-2001; 2001WO-EP07537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                    2209 CAAAAACTAAAAAT 2195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                          AAAAAAAAAAACT 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acid comprising
for diagnosis and treatm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for diagnosis and tre
cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 184;
                                                                                                                                                                                                                                                                                                                                                                                                      ABL33393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene; da
```

diseases. The present sequence is a gene of the invention.

4

```
SXS
                                                                                         ò
                                                                                                               a
                                                                                                                                      ð
                                                                                                                                                         g
                                                                                                                                                                                 ö
                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                   The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel
        useful
                                                                                                                                                                                                                                                                                                                                                                                             antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhematic; antiarthritic; antidiabetic; antipsoriatic; antilnflammaticy; cancer; antilnflammatory; cancer; actions are action and leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                     immune system disease; cytosine methylation; antiasthmatic;
                               AATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCT - -TCCAAATCAACCCAATCTTT
                                                      4664 ATTAAATAATTATTAATTATTATTTCTAAAACAATTTTTCTCTAAATTTTCTCAAAACTAT
                                                                                                  4604 CAATATATTTTAAAAAAATTAAATTTATTCTACAACTTCCTAAATTATATAAATAA
                                                                                                                                                                                         4484 AAATATICTATATICAAAATAAAAAATAATAATAACTATCCTCACTAAAAAATAAAAAC
                                                                           CACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGC
                                                                                                                        AAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic acid comprising fragment of chemically modified gene, us for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID NO 2394; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                Human immune system associated gene SEQ ID NO: 2394
                                                                                                                                                                                                                           595 AAGTAAAAAAAAAAAAAAAAAACTCGA 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berlin K;
                                                                                                                                                                                                                                                                  RESULT 5
ABL34421/c
TD ABL34421 standard; DNA; 1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUL-2001; 2001WO-EP07537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ບັ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                        26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dene;
                                                                                                                                                                    535
                               357
                                                                            415
                                                                                                                        475
         a
                               ò
                                                    셤
                                                                            õ
                                                                                                g
                                                                                                                        ð
                                                                                                                                           g
                                                                                                                                                                    ð
                                                                                                                                                                                         셤
                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                    g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, Alzheipsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                              ACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATC 542
                                                                                                                                                                                                                                                                  543 IGCATIGATAAATAIGGCCTIAGCCAITICCAAATAICTAAATIGICAACTCAAGTAAAA 602
                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhoumatic; antiarthritic; antidiabetic; antipsoriatic; antinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; hizhelmer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acid comprising fragment of chemically modified gene, us for diagnosis and treatment of diseases associated with abnormal
                                                                                                        ö
                                                    Length 1757;
                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; SEQ ID NO 1610; 32pp + Sequence Listing; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7306 BP; 2019 A; 93 C; 1645 G; 3549 T; 0 other;
Sequence 1757 BP; 396 A; 83 C; 464 G; 813 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immune system associated gene SEQ ID NO: 1610.
                                                            2;
0.027;
53;
                                                    DB 24;
                                                                               Pred. No. 0.027
0; Mismatches
                                                 Score 50.2;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABL33637 standard; DNA; 7306 BP.
                                                    8.18;
                   02-JUL-2001; 2001WO-EP07537,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000DE-1032529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                         1563 ATAAAATAAAAAA 1549
                                                                                                                                                                                                                                                                                                                                                                        603 AAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUN-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL33637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
ABL33637/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dene;
                                                                                                                                                            483
```

ഗ

```
₹.
                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                     AAS61386 standard; DNA; 5493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36-APR-2001; 2001WO-EP03968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000DE-1019173
2000DE-1032529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36-APR-2000; 2000DE-1019058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                                   2141 AAAAAAAAAAAAAA 2125
                                                                                                                                                                                                                                                                                                                                                AAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ģ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200177375-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-APR-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS61386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         olek A,
                                                                                                                                                                                 361
                                                                                                                                                                                                    2381
                                                                                                                                                                                                                                             2321
                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                      88888888888
                                                                                                                                           à
                                                                                                                                                            g
                                                                                                                                                                                 ò
                                                                                                                                                                                                  g
                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                  g
                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention provides a number of human immune system associated
                                                                                                                                                                                          6270
                                                291 ANTCACTICTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAAT 350
                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                   antlarterlosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirhemmatic; antiarthritic; antidabetic; antipsoriatic; antinflammatory; cancer, eye disease; arterlosclerosis; anaemia; acute myeloid leukaemia; Aizheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                   6509 AATCCCAACTACTCGAAAAACTAAAATAAAAATTCACCTAATACCGAAAAATTAAAAT
                                                                                       351 CATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAAT
                                                                                                           6449 TTCAATAAACTAAAATTATATTCACTACACTACAACCTAAATAACAAAACCAACTTTATC
                                                                                                                              411 CTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGT
                                                                                                                                                   ATGTAAAGTATCTGCATTGATAAATATGGCCTTTAGCCATTTCCAAATATCTAAATTGTCA
                                                                                                                                                                                                                                  Human; immune system disease; cytosine methylation; antiasthmatic;
                             ö
        Length 7306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 1931; 32pp + Sequence Listing; German.
                             Indels
                                                                                                                                                                                                                                                                                                                                                                                       Human immune system associated gene SEQ ID NO: 1931.
                            0; Mismatches 173;
        DB 24;
                    0.037
        Score 50.2;
Pred. No. 0.
                                                                                                                                                                                                                                                                        6209 AATAAAAATAAAAAAAAAAAAAAA 6183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₹
                                                                                                                                                                                                                                                     591 ACTCAAGTAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                            ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Berlin
                                                                                                                                                                                                                                                                                                                            DNA; 14006
      8.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000DE-1032529
2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                            Matches 154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ပဲ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-130909/17.
                   Similarity
                                                                                                                                                                                                                                                                                                                ABL33958/c
ID ABL33958 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                 26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3-JAN-2002
                                                                                                                                                                                                                                                                                                                                              ABL33958;
         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Olek A,
                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene;
                                                                                                                                                                                                              531
                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                        ð
                                                                                                          셤
                                                                                                                              ò
                                                                                                                                                  g
                                                                                                                                                                       ò
                                                                                                                                                                                       g
                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                     õ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene regulation-associated gene; severe combined immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cardiac damage; inflammatory response; Haemophilla; Werner syndrome; asthma; HDR syndrome; congenital heart defect; Saethre-Chotzen syndrome; renal disease; Preeclampsia; cardiac allograft vascular disease; colorectal cancer; thyroid cancer; oesophageal cancer; as; tumour; immunostimulant; cardiant; antinflammatory; coagulant; antiaethmatic; nephrotropic; gynecological; anti-tumour; immunosuppressive; cytostatic.
genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, ansemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AlDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATATC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                            Length 14006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human gene regulation-associated gene oligonucleotide #341.
                                                                                                                                                                                                                                                                                                                                                 Sequence 14006 BP; 3278 A; 155 C; 3257 G; 7313 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
8.0%; Score 49.8; DB 24;
Best Local Similarity 47.3%; Pred. No. 0.053;
Matches 150; Conservative 0; Mismatches 167;
```

9

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                      The invention relates to 224 nucleic acid sequences comprising at least 18 bases of a chemically pretreated gene associated with gene regulation selected from 43 known genes (or complementary sequences). The chemical pretreatment converts cytosine bases unmethylated at the chemical pretreatment or another base with hybridisation behaviour dissainlar to cytosine, to enable analysis of cytosine methylations. The DNA sequences, oligomers (or sets/arrays) and method are associated with gene regulation and in therapy of such diseases, by enabling analysis of the cytosine methylation patterns of such genes, kits are provided. They severe combined immunodeficiency disease, cardiac disorders, haemophilia, solid tumours and cancer, Werner syndrome, severe combined immunodeficiency disease, cardiac disorders, haemophilia, solid tumours and cancer, werner syndrome, sequence data for this specification and is sequence included in the sequence data for this specification and is sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPPO at the value of the printed specification, but was obtained in electronic fib. "The year of the printed specification and is considered with the well of the printed specification, but was obtained in electronic fib. "The year of the printed specification and is considered with the well of the printed specification and is considered with the well of the printed specification and is considered with the well of the printed specification and is considered with the well of the printed specification and is considered with the well of the printed specification and is considered with the well of the printed specification and is considered with the sequence electronic definition of the printed specification and is considered with t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                   New nucleic acid sequences from chemically modified genes associated with gene regulation, useful for analysing cytosine methylations for diagnosis and therapy of diseases e.g. severe combined immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 ACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAA 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         366 GGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTG 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426 GCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               546 ATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour suppressor gene derived chemically modified sequence #261.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 24; Length 5493;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5493 BP; 915 A; 149 C; 1631 G; 2798 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8.0%; Score 49.6; DB 24;
llarity 47.4%; Pred. No. 0.048;
Conservative 0; Mismatches 164;
                                                                                                                                           Disclosure; SEQ ID No 349; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS46539 standard; DNA; 5283 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              606 AAAAAAAAAAA 617
               WPI; 2002-017470/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS46539;
                                                                                                           disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAS46539/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          486
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
The invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with blaulphile, of genes associated with fumour suppression and concepenes having a sequence taken ifrom 536 (actually 533 since numbers 408, 458 and 500 are missing from the sequence listing) sequences.

CS and sequences complementary to (53). The nucleic acid may be a complementary to (53) and sequence longlement (PNA) of at least 9 nucleotides and may complementary to (53) and concleic acid may be a composed nucleic parameter for the diagnosis.

CC and/or single nucleiced polymorphisms and also to be used in a nucleic array for analysing diseases associated with CPG dinucleotides e.g. cancers and tumours. The probes can also be used in a method for carray for analysing diseases or the predisposition to specific diseases, by analysing cytosine methylations. The parameters may be compared to another set of genetic and/or epigenetic parameters may be differences serving as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The present sequence is one of the concept of the compared compared for mind from tumour suppressor genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fragments of chemically modified genes associated with tumour suppressor
Human; tumour suppressor gene; oncogene; antitumour; cytostatic;
cancer; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP;
cytosine methylation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2358 AAATAAAAAAACCAAACATCAAAAATATCCAACATAATTCCATTCATAAAACTCCA 2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305 AACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oncogenes, useful in designing primers and probes for diseases associated with cytosine methylation state e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        365 AGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  425 GGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 5283;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5283 BP; 1113 A; 151 C; 1299 G; 2720 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.9%; Score 49; DB 22; Length 52 47.3%; Pred. No. 0.066; tive 0; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID No 261; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000DE-1019058.
2000DE-1019173.
                                                                                                                                                                                                                                                                                                                                                         15-MAR-2001; 2001WO-EP02955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000DE-1032529
2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-602752/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                            WO200168912-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-APR-2000;
07-APR-2000;
30-JUN-2000;
                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                15-MAR-2000;
                                                                                                                                                                                                                                                                                   20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oncogenes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          analysing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer
```

```
4 09:11:57 2002
Mon Nov
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acute myeloid
                                   TAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTG 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          including eye diseases such as retinopathy, necyscular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloi leukaemia, Alzhelmer's disease, AIDS, epilepsy, neuvofibromatosis, rheumatoid arthritis, pociasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antilnflammatory; cancer, antilnflammatory; cancer, antilnflammatory; cancer, antilnflammatory; cancer, antilnflammatory; cancer, antilnflammatory; cancer, alienses; atteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psorlasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                     luman; Immune system disease; cytosine methylation; antiasthmatic;
                                                                        545 CATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acid comprising fragment of chemically modified gene, us for diagnosis and treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 48.8; DB 24; Length 6145;
Pred. No. 0.076;
0; Mismatches 167; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6145 BP; 1493 A; 99 C; 1309 G; 3244 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 945; 32pp + Sequence Listing; German
                                                                                                                                                                                                                                                                                                                                                                                              Human 1mmune system associated gene SEQ ID NO: 945.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Berlin K;
                                                                                                                                                                                                                                                                                ABL32972 standard; DNA; 6145 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JUN-2000; 2000DE-1032529
31-SEP-2000; 2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Olek A, Piepenbrock C,
                                                                                                                                                                                       2058 CAAAAAAAATA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (EPIG-) EPIGENOMICS AG
                                                                                                                                                    605 AAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cytosine methylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                         26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-JAN-2002.
                                                                                                                                                                                                                                                                                                                      ABL32972;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                 ABL32972,
                                                                                                                                                                                                                                                                                                                      a
 ò
                                   d
                                                                                                                                                    ò
                                                                                                                                                                                     9
                                                                          ò
```

```
Cell cycle; human; CpG dinucleotide; cytosine methylation; HIV; aging; human immunodeficiency virus; neurodegenerative disorder; solid tumour; graft-versus-host disease; glomerular disease; Lewy body disease; cancer; arthritis; arteriosclerosis; anti-HIV; neuroprotective; antiarthritic; immunosuppressive; antitumour; cytostatic; antiarteriosclerotic; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences AAS45296-AAS45520 represent chemically pretreated genomic DNA molecules associated with the cell cycle and specific PCR primars of the invention. The sequences are useful for detecting the methylation state of all CpG dinucleotides in a sequence and therefore for analysing sasociated diseases. By analysing cytosine methylations in the pretreated DNA, genetic and/or epigenetic parameters for the diseases and thereby of existing diseases or the predisposition to specific diseases can be
                              AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                              TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                           TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Designing primers and probes for analyaing diseases associated with cytosine methylation state e.g. arthritis, cancer, aging, arteriosclerosis comprising fragments of chemically modified genes
AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chemically pretreated genomic DNA associated with cell cycle #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID No 1; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Berlin K;
                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                          AAS45296 standard; DNA; 10619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000DE-1019058.
2000DE-1019173.
2000DE-1032529.
2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-MAR-2001; 2001WO-EP02945.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000DE-1013847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    associated with cell cycle
                                                                                                                                                                                                                                                                                        5561 AAATAAAAAAAAA 5546
                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                            AAAAAAAAAAAAAA 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-602751/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200168911-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-APR-2000;
07-APR-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                          AAS45296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Olek A,
                                                                                                                                                                                                                                                                                                                                                          AAS45296/c
                                                                                              5741
                                                                                                                              481
 361
                                                                                                                                                                                             541
                                                                                                                                                                                                                                                            601
                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR
                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                       셤
                                                                                         g
                                                                                                                              ð
                                                                                                                                                           g
                                                              ò
                                                                                                                                                                                          ò
```

ö

Gaps

ö

g

ð

301 ACAGAACAAAATCAAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360

Matches 149; Conservative

Similarity

Local

œ

; 0

```
cytosine methylation
                           Claim 1;
                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CARU/) (GARD/) (VENT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hoffman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA70117
   g
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                        ö
ascertained. The parameters may be compared to another set of genetic and/or epigenetic parameters, the differences serving as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The sequences of the invention are useful for the diagnosis and therapy of MIV infection, neurodegenerative disorders, graft-versus-host disease, aging, glomerular disease, Lewy body disease, arthritis, arthritis, arteriosclerosis, solid tumours and cancers.
                                                                                                                                                                                                       549
                                                                                                                                                                               370 ATTCGAGITITAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAG 429
                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; immune system disease; cytosine methylation; antiasthmatic; antianeamic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiinflammatory; cancer; eye disease; arteriosolerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                430 ATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAA
                                                                                                                                                                                                                                                                                ATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTG
                                                                                                                                                                                                                                                                                                         Nucleic acid comprising fragment of chemically modified gene, usfor diagnosis and treatment of diseases associated with abnormal
                                                                                                                             Length 10619;
                                                                                                                                                      ö
                                                                                                   Sequence 10619 BP; 2700 A; 215 C; 2676 G; 5028 T; 0 other;
                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immune system associated gene SEQ ID NO: 43.
                                                                                                                            Score 48.6; DB 22;
Pred. No. 0.095;
0; Mismatches 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
ABL32070/c
ID ABL32070 standard; DNA; 10619 BP.
                                                                                                                                        49.88;
                                                                                                                             7.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                         al Similarity 49.8
123; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ပဲ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                            1501 AAAAAA 1495
                                                                                                                                                                                                                                                                                                                                                                                    610 AAAAAA 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL32070;
                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           olek A,
                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene;
                                                                                                                                                                                                                                                                                 490
                                                                                                                                                                                                                                                                                                                                  550
 88888888888
                                                                                                                                                                               ö
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                å
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                    ô
```

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system discorders, including eye diseases such as retinopathy, necvascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, Alb., epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                              1622
                                                                                                                                                                                                                                                                                                                         370 ATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmodium falciparum chromosome 2 related DNA sequence SEQ ID NO:250.
                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                            430 ATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                            490 ATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proteins encoded by chromosome 2 of the human malarial parasite,
                                                                                                                                                                                                                        Length 10619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chromosome 2; human malaria parasite; protozoacide; infection; insecticide;
                                                                                                                                                                                     Sequence 10619 BP; 2700 A; 215 C; 2676 G; 5028 T; 0 other;
                                                                                                                                                                                                                        DB 24;
SEQ ID NO 43; 32pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Venter JC;
                                                                                                                                                                                                                                          0.095
                                                                                                                                                                                                                      7.8%; Score 48.6; D
19.8%; Pred. No. 0.09
lve 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gardner M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA70117 standard; DNA; 3567 BP
                                                                                                                                                                                                                                        Llarity 49.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US26796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0107131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antimalarial; malaria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      falciparum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carucci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-365347/31
                                                                                                                                                                                                                                      Best Local Similarity
Matches 123; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VENTER J C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HOFF/) HOFFMAN S.
(CARU/) CARUCCI D.
(GARD/) GARDNER M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501 AAAAAA 1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                610 AAAAAA 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200025728-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ś
```

```
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAS46608/
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ç
                                                                                           by chromosome 2 of the human malarial parasite, plasmodium falciparum.

Also described are: (1) nuclectide sequences (II) encoding (I); and (2) vaccines against P. falciparum infection comprising (I) or (II).

(1) and (II) are useful for the development of vaccines against

(2) and (II) are useful for the development of vaccines against

(3) and (II) are useful for the development of vaccines against

(4) and (II) are useful for the development of vaccines against

(5) antibody raised to immunogens comprising the sequences of (II), are

(1) especially when they are rifins or secreted or membrane proteins)

(1) (especially when they are rifins or secreted or membrane proteins)

(1) capecially when they are rifins or secreted or membrane proteins)

(1) capecially when they are rifins or secreted or membrane proteins)

(1) capecially when they are rifins or secreted or membrane proteins)

(1) capecially when they are rifins or secreted or membrane proteins)

(2) can aid the identification of funds to treat or prevent P. falciparum

(3) can aid the parasitic lifecycle, and provide new targets for vaccine and drug development. Parasite resistance to drugs and mosquito

(4) resistance to insecticides have led to a resurgence of malaria in many

(5) camplexity of the world, and there is a pressing need for vaccines and new

(5) carts of the world, and there is a pressing need for vaccines and new

(6) carts of the world, and the persent invention, but which are not

(8) specifically mentioned within the specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                present invention describes proteins and their fragments (I) encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1493 ATGATAATATTAATCATAATGATAATATTAATTATTAATAATGATAATATTAATTATA 1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1553 ATAATGATAATTATTATAATAATAATATTTGTCCGACAGGTGATAAAAATCATATTGAAA 1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         388 TAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGG 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       328 ATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACAC 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATA 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCC 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antilnflammatory; cancer, eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; immune system disease; cytosine methylation; antiasthmatic;
antimalarial vaccines and in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21; Length 3567;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 48.4; DB 21; Length
Pred. No. 0.083;
0; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3567 BP; 1641 A; 269 C; 473 G; 1184 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immune system associated gene SEQ ID NO: 1122.
                                                  Disclosure; Page 470-471; 577pp; English.
                diagnosis of P. falciparum infection
useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        149/c
ABL33149 standard; DNA; 5452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 139; Conservative
falciparum,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABL33149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABL33149,
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
```

```
The present invention provides a number of human immune system associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopethy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Albrimer's a disease, AIDS, epilepsy, neurofibromaticals, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; tumour suppressor gene; oncogene; antitumour; cytostatic;
cancer; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP;
cytosine methylation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5201 TATCTCAACAAAACAAAACAAAAACAAAATAACCATAATTAAAAATACTCTACAAAACCA 5142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5021 CAATAACACACTAAATCAAACAAAAAATTAAAATCAATAAACTCAAAAATCAAAACCATTAAA 4962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                327 TATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACA 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               387 CTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGG 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGC 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumour suppressor gene derived chemically modified sequence #330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rising fragment of chemically modified gene, us treatment of diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 5452;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1122; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5452 BP; 1328 A; 55 C; 1065 G; 3004 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.8%; Score 48.4; DB 24;
47.9%; Pred. No. 0.091;
tive 0; Mismatches 151;
                                                                                                                                                                                                                                                                                                                                                           Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAS46608 standard; DNA; 6767 BP
                                                                                                                           32-JUL-2001; 2001WO-EP07537.
                                                                                                                                                                                         30-JUN-2000; 2000DE-1032529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-DEC-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid comprising
for diagnosis and treatm
                                                                                                                                                                                                                                                                                                                                                           Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for diagnosis and tre
cytosine methylation
                                                                                                                                                                                                                                                                                          (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
WO200200928-A2.
                                                          03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dest Local Sim
Matches 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAS46608;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                           Olek A,
```

ö

```
The invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with blaulphile, of genes associated with rumour suppressain and concogenes having a sequence taken if rom 536 (actually 533 since numbers 408, 458 and 500 are missing from the sequence listing) sequences. CC numbers 408, 458 and 500 are missing from the sequence listing sequences complementary to (55). The nucleic acid may be a complement of a set of probes for detecting the cytosine methylation state and/or single nucleotide polymorphisms and also to be used in an carray for analysing diseases associated with CPG dinucleotides or array for analysing diseases associated with CPG dinucleotides or ascertaining genetic and/or epigenetic parameters for the diagnosis and/or therapy of existing diseases or the predisposition to specific diseases, by analysing cytosine methylations. The parameters may be compared to another set of genetic and/or epigenetic parameters may be compared to another set of genetic and/or epigenetic parameters. The compared to another set of genetic and/or epigenetic parameters which are disadvantageous to patients. The present sequence is one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  533 genomic sequences derived from tumour suppressor genes and oncogenes. Sequences with even numbered Seq ID numbers are the complementary sequence of the corresponding odd numbered sequence (e.g. ID 2 and ID1, ID 536 and ID 535, except for those whose partner sequence is missing).
                                                                                                                                                                                                                                                                                                                                                                                                                                Fragments of chemically modified genes associated with tumour suppressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        288 ACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAA 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348 AATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCC 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                  genes and oncogenes, useful in designing primers and probes for analysing diseases associated with cytosine methylation state e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 7.8%; Score 48.4; DB 22; Length 6767; Best Local Similarity 46.7%; Pred. No. 0.095; Matches 154; Conservative 0; Mismatches 176; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 6767 BP; 1446 A; 207 C; 1601 G; 3513 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID No 330; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                Berlin K;
                                                                                                                                                                                       2000DE-1019058.
2000DE-1019173.
2000DE-1032529.
2000DE-1043826.
                                                                                                                           15-MAR-2001; 2001WO-EP02955
                                                                                                                                                                                                                                                                                                                                           Piepenbrock C,
                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-602752/68
                                        WO200168912-A2.
                                                                                                                                                                                                           07-APR-2000;
30-JUN-2000;
01-SEP-2000;
  Homo sapiens.
                                                                                                                                                                     15-MAR-2000;
                                                                                                                                                                                            06-APR-2000;
                                                                                     20-SEP-2001
                                                                                                                                                                                                                                                                                                                                             Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
```

ö

2660 CAAAAACAAAAAAAAAAATCACAACCAAAAACAACGACAAAAATAACAAAAACAAAAA 2601

468

408 AATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGAT 467

à g ó

```
528 AAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTG 587
                               ö
                                                   셤
```

2480 AAAACAAAAAAAATATATAAACAAAATA 2451 588 TCAACTCAAGTAAAAAAAAAAAAAAAAA 617 ò

Search completed: November 1, 2002, 23:24:25 Job time: 218.032 secs

Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

sed

Minimum DB Maximum DB

Database

Result ç

טט

```
Sequence 24, Appl
Sequence 24, Appl
Sequence 4, Appl1
Sequence 7, Appl1
Sequence 3, Appl1
Sequence 1, Appl1
Sequence 1, Appl1
Sequence 1, Appl1
Sequence 16, Appl1
Sequence 16, Appl1
Sequence 16, Appl1
Sequence 31, Appl1
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; Length 7218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
                                                            US-08-936-165A-24
US-08-93-535-24
US-08-93-535-24
US-08-93-535-24
US-09-178-973-4
US-09-178-973B-7
US-09-3447-373B-3
US-09-867-106-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
CORRESPONDENCE: 52
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-157-101A-4
US-09-277-716-31
US-08-764-100-14
US-08-764-100-20
                                                                                                                                                                                                                                                                                                                                                                            US-08-446-855A-1
US-09-150-741-1
US-08-764-100-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICALL...
APPLICALL...
APPLICATION: 435
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,313
FILING DATE: 85-AUG-1991
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 30472/114 I)
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29,768
R: 30472/114 IMMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 46.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Foley & Lardner
STREET: 1800 Diagonal Road, Suite 500
CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 22313-0299
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-232-463-14/c
; Sequence 14, Application US/08232463
Patent No. 570367
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703)683-4109
TELEX: 899149
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 7218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.5%;
                                                                           440
1493
1493
12445
11113
11117
11117
11117
11117
11117
11117
11117
11117
11117
11117
11117
11117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
1117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; CLONE: pTZgpt-F1s
US-08-232-463-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 11ne
IMMEDIATE SOURCE:
                                                                                                                                                                                                        322.44.08
322.44.08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
       224, App
3, Appli
3, Appli
1, Appli
1, Appli
595, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1, Appli
1, Appli
1, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Appli
                                                                                                                                                                                                                                 November 1, 2002, 22:17:03 ; Search time 31.0794 Seconds (without alignments) 4923.835 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sednence Sed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                1 сстсвавтортувасатсва......вавававававастсуву
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                                   5.1.3
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-007-005-17
US-09-244-796-17
US-09-128-155-16
US-08-487-8268-13
US-09-014-969-14
PCT-US96-10521-17
PCT-US96-10521-17
US-08-718-964-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-040-843-1
US-09-621-855-1
US-08-998-416-595
US-08-211-942-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-842-341-1
US-08-936-165A-224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-747-221B-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-323-170B-1
US-08-954-441-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-378-313-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-040-843-3
US-09-621-855-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    383533 seqs, 122816752 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                       GenCore version
Copyright (c) 1993 - 2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                       nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                            US-09-881-556-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match 1
```

O

υ

OO

N

g ò 셤 à 셤 ò 셤

à

```
1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2138
                                                                                                                                                                                                                                                                                   286 TTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAA--AA 343
                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            338 AGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCC 397
                                                                                                                                                                                                                                                                                                                                         344 TGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2197 TAAATATAAATTAAAATTGTCATGCCAAAACTGATAAATATTTGATATTATCCAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524 AAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                         404 ACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Liu, Ribe
TITLE OF INVENTION: SELECTION OF PROTEINS USING RNA-PROTEIN
TITLE OF INVENTION: FOLIONS
FILE REFERENCE: 00786/350003
CURRENT APPLICATION NUMBER: US/09/007,005B
CURRENT FILING DATE: 1998-01-14
EARLIER PELICATION NUMBER: 60/035,963
EARLIER PELICATION NUMBER: 60/064,491
EARLIER APPLICATION NUMBER: 60/064,491
EARLIER PILING DATE: 1997-11-06
NUMBER OF SEQ ID NOS: 33
SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                                                                                                            Length 5852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4; Length 289;
                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                             Pred. No. 0.044;
0; Mismatches 173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match 6.9%; Score 42.8; DB 4; 1
Best Local Similarity 12.9%; Pred. No. 0.021;
Matches 36; Conservative 98; Mismatches 146;
                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2017 TTTTCAAAGTAAAAAAAAAAAAAAAAAAAAAA 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          584 ATTGTCAACTCAAGTAAAAAAAAAAAAAAAA 617
                                                                                                                                                                          6.9%; Score 43.2;
47.6%; Pred. No. 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Translation template
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17, Application US/09007005B Patent No. 6258558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LOCATION: (1)...(289)
; OTHER INFORMATION: n = A,T,C or G
US-09-007-005-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Szostak, Jack W.
APPLICANT: Roberts, Richard W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: RNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                             Best_Local Similarity 47.63
Matches 159; Conservative
                            CDS
2378..5038
                                                                                                         2378..5038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc_feature
      FEATURE:
NAME/KEY:
                                               LOCATION:
FEATURE:
                                                                                      ; NAME/KEY:
; LOCATION:
US-07-867-106-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-007-005-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 17
LENGTH: 289
                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                         ö
                                                                                                322 CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                                                                                                                                 AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                         Gaps
                                                                                                                                                                                                                                                                                                                                              382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTT
                                                                                                                                                                                                                                                                                                                  442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5389526ris STREET: One Liberty Place 46th Floor STATE: Philadelphia STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application US/07867106
Patent No. 5389526
GENERAL INFORMATION:
APPLICANT: Slade, Martin B
APPLICANT: Chang, Andy C M
APPLICANT: Williams, Keith L
TITLE OF INVENTION: Improved Plasmid Vectors for Cellular
TITLE OF INVENTION: Slime Moulds of the Genus Dictyostellum
NUMBER OF SEQUENCES: 19
Best Local Similarity 0.8%; Pred. No. 0.0057;
Matches 3; Conservative 215; Mismatches 142; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/867,106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 19920625
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PJ 7187
APPLICATION NUMBER: PCT/AU90/00530
FILING DATE: 02-NOV-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Feeney, Joanne Longo
REGISTRATION NUMBER: 35,134
REFERENCE/DOCKET NUMBER: RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION TELEPHONE: 215-568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 5852 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock
```

USA

COUNTRY:

US-07-867-106-2/c

g ò

ò

19103

TOPOLOGY: 11n MOLECULE TYPE: ANTI-SENSE: NO

3

us-09-881-556-4.rni

q ò g õ ð

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
    ô
                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RINRINRSRINRINRSRINRINRSRINRINRSRINRINRSRINRINRSRICARGREGRUFARARC 242
                                                                                                                                                                                                                                                                               183 RNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRCRARGRCRGRGRGRGRGRG 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRS 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RINRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRS 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAAT 577
                                                                                                   63 RNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRS 122
                                                                                                                                                                                   123 RNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRSRNRNRS 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               398 AAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAA 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAAGA 517
                                                                    AAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGTTAA 457
                                                                                                                                                         AATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAAGA 517
                                                                                                                                                                                                                                                  AATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAAT 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      338 AGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCC 397
Sequence 17. Application US/09244796

Batent No. 6281344

GENERAL INPORMATION:
APPLICANT: SZOSTAK, Jack W.
APPLICANT: SZOSTAK, Jack W.
APPLICANT: LIU, Rihe
TITLE OF INVENTION: SELECTION OF PROTEINS USING RNA-PROTEIN
TITLE OF INVENTION: SELECTION OF PROTEINS USING RNA-PROTEIN
TITLE OF INVENTION: SELECTION OF PROTEINS USING RNA-PROTEIN
TITLE OF INVENTION: 1992-002
CURRENT FILING DATE: 1999-02-05
GURRENT FILING DATE: 1999-01-05
EARLIER FILING DATE: 1997-01-13
EARLIER FILING DATE: 1998-01-14
SEARLIER FILING DATE: 1998-01-14
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PSECSO FOR WINDOWS VERSION 4.0

SEQ ID NO 17

LENGTH: 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 6.9%; Score 42.8; DB 4; Length 289; Best Local Similarity 12.9%; Pred. No. 0.021; Matches 36; Conservative 98; Mismatches 146; Indels
                                                                                                                                                                                                                                                                                                                                                                    578 ATCTAAATTGTCAACTCAAGTAAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Translation template
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature

LCCATION: (1)...(289)

CTHER INFORMATION: n = A,T,C or G

US-09-244-96-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-244-796-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                         458
                                                                                                                                                                                                                                                518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ð

```
us-08-487-826B-13

Sequence 13, Application US/08487826B

Sequence 13, Application US/08487826B

Sequence 13, Application US/08487826B

Setent No. 5993827

GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

APPLICANT: Sim, Kim L.

APPLICANT: Sim, Kim L.

APPLICANT: Miller, Louis H.

APPLICANT: Miller, Louis H.

APPLICANT: Peterson, David S.

APPLICANT: Peterson, David S.

APPLICANT: Wellems, Thomas E.

TITLE OF INVENTION: INDING DOMAINS FROM PLASMODIUM VIVAX

TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 45

CORRESPONDENCE ADDRESS:

ADDRESSEE: Knobbe Martens Olson & Bear

STREET: 620 Newport Center Drive 16th Floor

CITY: Newport Beach

COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                              TITLE OF INVENTION: NOVEL MOLECULES OF TANGO-77 RELATED PROTEIN FAMILY TITLE OF INVENTION: AND USES THEREOF TITLE OF INVENTION: AND USES THEREOF TITLE OF INVENTION: AND USES THEREOF CURRENT FILING AND USES THEREOF CURRENT FILING DATE: 1998-08-03 EARLIER APPLICATION NUMBER: US 60/091,650 EARLIER FILING DATE: 1998-07-02 EARLIER FILING DATE: 1998-07-02 EARLIER FILING DATE: 1997-08-04 NUMBER: OF SEC ID NOS: 18 SOFTWARE: PRAKEOF FOR WINDOWS: 18 SEC ID NO 16 SEC ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       392 TCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAA 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     228 TTTAAAAATTAAAAAATATAAAAATAAAGAAATGGAAGTGGATTCTTAGAAAAAA 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  452 GGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTC 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              332 TAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 152331;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 6.8%; Score 42.4; DB 3; Length 15
Best Local Similarity 49.1%; Pred. No. 0.2;
Matches 112; Conservative 0; Mismatches 116; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            512 GAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGG 559
                                    243 RURCRURURGRCRGRCRUAAAAAAAAAAAAAAAAAAAAA 282
Sequence 16, Application US/09128155; Patent No. 6117654; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; LOCATION: (1)...(152331); OTHER INFORMATION: n = A,T,C or G
US-09-128-155-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo saplens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
                                                                                                                                                                          US-09-128-155-16
```

```
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-014-969-14
                                               CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 AGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 19124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14, Application US/09014969;
Patent No. 5965397
GENERAL INFORMATION:
APPLICANT: Jacobs, Kenneth
APPLICANT: MCCOY, John M.
APPLICANT: Racle, Lisa A.
APPLICANT: Racle, Lisa A.
APPLICANT: Treacy, Maurice
APPLICANT: Spaulidy, Vikki
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
TITLE OF INVENTION: ENCODING THEM
NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 6.6%; Score 41.2; DB 2; Length 1
Best Local Similarity 45.6%; Pred. No. 0.21;
Matches 145; Conservative 0; Mismatches 173; Indels
                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db 16018 TACAACATTTACACATAC 16035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601 AAAAAAAAAAAAAA 618
ZIP: 92660
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                               ; ANTI-SENSE: NO US-08-487-826B-13
                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                 HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
US-09-014-969-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
2187 ATCTGGATCTGTGTATTTGATTTTGTACTTAAATGTGACAAATAAACCTTTTGGGAGAA 2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358 ATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCAC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      418 GCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAG 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538 GTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MODULATORS OF THE FUNCTION OF FAS RECEPTORS AND OTHER PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODULATORS OF THE FUNCTION OF FAS ITITLE OF INVENTION: AND OTHER PROTEINS
NUMBER OF SEQUENCES: 34
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/014,969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.5%; Score 40.4; DB 2; 1
46.9%; Pred. No. 0.17;
tive 1; Mismatches 137;
E: Genetics Institute, Inc.
87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/US96/10521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 17, Application PC/TUS9610521 GENERAL INFORMATION: APPLICANT:
                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: SPUNGET, SUZABINE A.
REGISTRATION NUMBER: 41,323
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 848-8284
TELEPHONE: (617) 876-5851
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 2447 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2427 AAAAAAAAAAAAAAAAA 2446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          598 TAAAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 46.9
Matches 122; Conservative
                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                         Cambridge
                                                                                       U.S.A.
                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                         COUNTRY: U ZIP: 02140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US96-10521-17
```

ö

ö

```
APPLICANT: Van der Bruggen, Pierre; Mandruzzato, Susanna;
APPLICANT: Boon-Falleur, Thierry
TITLE OF INVENTION: Nucleic Acid Molecule Encoding A Functional
TITLE OF INVENTION: Protein, The Protein So Encoded And Uses Thereof
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Felfe & Lynch
STREET: 805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                495 ATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAA 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                        DB 5; Length 2887;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 2649;
                                                                                                                                                                                                                                                 52; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 6.3%; Score 39.4; DB 2; Best Local Similarity 57.9%; Pred. No. 0.31; Matches 70; Conservative 0; Mismatches 51;
                                                                                                                                                                                                   Query Match 6.4%; Score 39.8; DB Best Local Similarity 57.7%; Pred. No. 0.26; Matches 71; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LUD 5442:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/718,964 FILING DATE: 26-September-1996 CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Hanson, No. 5932694man D. REGISTRATION NUMBER: 30,946 REFERENCE-DOCKET NUMBER: LUD 54 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08/669,590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application US/08718964
Patent No. 5932694
GENERAL INFORMATION:
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 2887 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (212) 688-9200
TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 24-JUNE-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2649 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Wordperfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
EDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York City
STATE: New York
ZIP: 10022
                                                                                                              ; TOPOLOGY: linear
; MOLECULE TYPE: CDNA
PCT-US96-10521-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2874 AAA 2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        615 AAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-718-964-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-718-964-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2490 ATTATTTAAATCATTAGGAATTAAGTTATCTTTAAAATTTAAGTATCTTTTTCCAAAA 2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       495 ATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAA 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
TITLE OF INVENTION: MODULATORS OF THE FUNCTION OF FAS RECEPTORS
TITLE OF INVENTION: AND OTHER PROTEINS
NUMBER OF SEQUENCES: 34
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: PLOPPY disk
COMPUTER: PLOPPY disk
SOFTWARE: PLOPPY disk
APPLICATION DATR:
APPLICATION NUMBER: PCT/US96/10521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 39.8; DB 5; Length 2619;
Pred. No. 0.25;
0; Mismatches 52; Indels 0
                                                                              PRIOR APPLICATION NUMBER: IL 114,986
FILING DATE: 17-AUG-1995
PRIOR APPLICATION NUMBER: IL 115,319
FILING DATE: 14-SEP-1995
PRIOR APPLICATION NUMBER: IL 116,588
FILING DATE: 27-DEC-1995
PRIOR APPLICATION NUMBER: IL 116,588
FILING DATE: 37-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 117,932
FILING DATE: 16-APR-1996
INFORMATION FOR SEQ ID NO: 17:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 114,615
FILING DATE: 16-JUL-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 114,986
FILING DATE: 17-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application PC/TUS9610521
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: IL 116,588 FILING DATE: 27-DEC-1995 PRIOR APPLICATION DATA: APPLICATION NUMBER: IL 117,932 FILING DATE: 16-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 17-ANG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 115,319
FILING DATE: 14-SEP-1995
PRIOR APPLICATION DATA:
                    APPLICATION NUMBER: IL 114,615
FILING DATE: 16-JUL-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 6.4%;
Best Local Similarity 57.7%;
Matches 71; Conservative C
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 2619 base palrs
TYPE: nucleic acid
STRANDEDNESS: single
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: CDNA PCT-US96-10521-17
                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2610 AAA 2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        615 AAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
PCT-US96-10521-14
```

g õ g õ ö

```
2649 A 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2649 A 2649
                                                                                US-08-842-341-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-842-341-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 615 A 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                      2529 ATTATTTAAATCATTAGGAATTAAGTTATCTTTAAATTTAAGTATCTTTTTTCAAAAA 2588
                                                                        GENERAL INFORMATION:
APPLICANT: van der Bruggen, Pierre; Mandruzzato, Susanna;
APPLICANT: boon-Falleur, Thierry
TITLE OF INVENTION: Nucleic Acid Molecule Encoding A Functional
TITLE OF INVENTION: Protein, The Protein So Encoded And Uses Thereof
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fulbright & Jaworski, L.L.P..
495 ATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAAGTATCTGCATTGATAAA 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                495 ATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAA 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 6.3%; Score 39.4; DB 2; Length 2649; Best Local Similarity 57.9%; Pred. No. 0.31; Matches 70; Conservative 0; Mismatches 51; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Fulbright & Jaworski, L.L.P., STREET: 555 Fifth Avenue CITY: New York City STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: LUD 5442.1 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/059,964A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/718,964
FILING DATE: 26-September-1996
APPLICATION NUMBER: 08/66,590
FILING DATE: 24-JUNE-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hanson, No. 5952228man D. REGISTRATION NUMBER: 30,946
                                                                                                                                                                                                                                                                                        Sequence 1, Application US/09059964A Patent No. 5952228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (212) 688-9200
TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 2649 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM
OPERATING SYSTEM: PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TOPOLOGY: linear
US-09-059-964A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10103
                                                                                                                                                                                             2649 A 2649
                                                                                                                                                                                                                                                  RESULT 11
US-09-059-964A-1
                                                                                                                                                       615 A 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          615 A 615
                                      셤
                                                                                                               q
                                                                              ô
                                                                                                                                                       å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2529 ATTATTTAAATCATTAGGAATTAAGTTATCTTTAAAATTTAAGTATCTTTTTCAAAAA 2588
                                                                     APPLICANT: van der Bruggen, Pierre; Mandruzzato, Susanna;
APPLICANT: Boon-Falleur, Thierry
TITLE OF INVENTION: Nucleic Acid Molecule Encoding A Functional
TITLE OF INVENTION: Protein, The Protein So Encoded And Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   495 ATTAITGAAGATACTICGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAA 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2649;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51; Indels
                                                                                                                                                              NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Felfe & Lynch
STREET: 805 Third Avenue
CITY: New York City
STRYE: New York
ZIP: 10022
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 360 kb storage
COMPUTER: IBM
OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.3%; Score 39.4; DB 2;
57.9%; Pred. No. 0.31;
tive 0; Mismatches 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/718,964
FILING DATE: 26-September-1996
APPLICATION NUMBER: 08/669,590
FILING DATE: 24-JUNE-1995
ATTORNEY, AGENT INFORMATION:
NAME: Hanson, No. 595313man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: 41UD 5442.1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/842,341 FILING DATE: 24-APR-1997 CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 224, Application US/08936165A
Patent No. 6348582
GENERAL INFORMATION:
APPLICANT: Black, Michael
APPLICANT: Burnham, Martin
APPLICANT: Hodgson, John
Sequence 1, Application US/08842341 Patent No. 5955313 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (212) 688-9200
TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 2649 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 6.39
Best Local Similarity 57.99
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
US-08-936-165A-224/c
```

```
884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  434 GGAAAGTTATGGGGAAAAGGATAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGA 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         374 GAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGT 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494 CATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAA 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1054 GGCAATTGCAGAINTTGAAAAAGCTGTTAAAGAAAAGCAACAGCAAATTGATAATAGTCT 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    314 AAAGCCAGCTACATATCCTAACCAAGAAATGAAAATCATAATAATCAGGAAGGTAATTC 373
             APPLICANT: NICHLALL
APPLICANT: Pratt, Julie
APPLICANT: Reichard, Richard
APPLICANT: Reschard, Rartin
APPLICANT: Resemberg, Martin
APPLICANT: Ward, Judith
TITLE OF INVENTION: Polypeptides and Their Uses
NUMBER OF SEQUENCES: 534
CORRESPONDENCES: 534
CORRESPONDENCES: SmithKiine Beecham Corporation
STREET: 709 Swedeland Road
CITY: King of Prussia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37.8; DB 4; Length 1886;
Pred. No. 0.72;
0; Mismatches 170; Indels 0
                                                                                                                                                                                                                                                                                                                                           COMPUTER: 18% COMPUTER: OPERATING SYSTEM: DOS SOFFWARE: FastSEO for Windows Version 2.0 SOFFWARE: FastSEO for Windows Version 2.0 CURRENT APPLICATION DATA: US/08/936,165A PPLICATION NUMBER: US/08/936,165A FILING DATE: 24 SEP-1997 CLASSIFICATION DATA: 60/027,032 FILING DATE: 24 SEP-1996 ATTORNEY/AGENT INFORMATION: NAME: Gimmi, Edward Registration NUMBER: 38,891 REFERENCE/DOCKET NUMBER: P50549 TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 224:
David
Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Bost Local Similarity 44.8%;
Matches 138; Conservative
                                                                                                                                                                                                                                                                                                                      3: Diskette
IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: Genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 1886 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 610-270-5090
   Knowles,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614 AAAACTCG 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934 AGCACTTG 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-936-165A-224
                                                                                                                                                                                                                                                                                                                                       COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
764 AAGTAAGACTTAAGAGTCATACGACACCTAATATTTAAAAGAAATTGAACAAGAAATTG 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 3; Length 2019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69; Indels
                                                                                                                                                                                                                                                                                                                                         STREET: 4000 Bell Atlantic Tower, 1717 Arch Stre
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFWARE: FastSED for Windows Version 2.0b
CURRENY APPLICATION DATA:
APPLICATION NUMBER: US/09/040,843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 37.6; DB Pred. No. 0.83; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dechert, Price & Rhoads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595 AAGTAAAAAAAAAAAAAAAAACTCGA 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/057,535
FILING DATE: 29-AGG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Falk, Stephen T
REGISTRATION NUMBER: 36,795
REFERENCE/DOCKET NUMBER: GM10082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GM10082
                                                                                         Jaworski, Deborah J.
Wang, Min
Shilling, Lisa K.
Burnham, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 3, Application US/09621855
RESULT 14
US-09-040-843-3
Sequence 3, Application US/09040843
; Patent No. 6124119
                                                                                                                                                               APPLICANT: FOSDETTY, Andrew APPLICANT: Hodgson, John E. APPLICANT: Hawlor, Elizabeth APPLICANT: Ward, Judith APPLICANT: WARSPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-994-2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 53.4%;
Matches 79; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 2019 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 215-994-2222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TOPOLOGY: linear
US-09-040-843-3
                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                     STATE: P. COUNTRY:
                                                                                           APPLICANT:
APPLICANT:
                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
US-09-621-855-3
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               535 AAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTC 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 6.0%; Score 37.6; DB 4; Length 2019; Best Local Similarity 53.4%; Pred. No. 0.83; Matches 79; Conservative 0; Mismatches 69; Indels 0;
                                                                                                                                                                                                                                                                                       ADDRESSEE: Dechert, Price & Rhoads
STREET: 4000 Bell Atlantic Tower, 1717 Arch Stre
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER KEALALL.

MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows 95
SOFTWARE: FastSEQ for Windows 95
SOFTWARE: FastSEQ for Windows 95
SOFTWARE: STATEM: Windows 95
FILING DATE: 24-Jul-2000
CLASSIFICATION NUMBER: US/09/621,855
FILING DATE: CONKNOWN>
APPLICATION NUMBER: 09/040,843
FILING DATE: CINKNOWN>
ATTORNEY FALK, Stephen T
REGISTRATION NUMBER: 36,795
REFERENCE/DOCKET NUMBER: 36,795
REFERENCE/DOCKET NUMBER: 36,795
TELEPHONE: 215-994-222
TELEFAX: 215-994-222
TELEFAX: 215-994-222
TELEFAX: CONKNOWN>
SEQUENCE CHARACTERISTICS:
LENGTH: 2019 base pairs
TYPE: NULLEIS GOULDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: November 1, 2002, 23:27:28 Job time : 106.579 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               595 AAGTAAAAAAAAAAAAAAAAAAACTCGA 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Jaworski, Deborah J.
                                                           Wang, Min
Shiling, Lisa K.
Burnham, Martin
Fosberry, Andrew
Hodgson, John E.
Lawlor, Elizabeth
Rosenberg, Martin
Ward, Judith
TITLE OF INVENTION: McCB
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 19103-2793
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
; Patent No. 6346608
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                   STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-621-855-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

nucletc

₹

ë o

Sequence:

Searched:

```
Location/Qualifiers

1. 837

/organism="Cryptosporidium parvum"
/strain="IOWA"
/db_xref="taxon:5807"
/db_xref="taxon:5807"
/db_not=lib="opiOWADJNA1"
/lab_host="E. coli XL2 Blue MRF'"
/note="Vector: pBlueScript II (SK-); Site_1: EcoRV; C. parvum (IOWA isolate) genomic DNA was hydrodynamically sheared to produce fragments having a tight size distribution between 2-4 kb by Dr. Yvonne Thorstenson of the Stanford DNA Sequencing and Technology Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Francisco
Box 0811, San Francisco, CA 94143-0811, USA
Tel: 415 206 8846
Fax: 415 206 8846
Email: malaria@itsa.ucsf.edu
For Annotation Data see http://medsfgh.ucsf.edu/id/CpTags/home.html
Seq primer: M13(-21) forward
                              ALO98379 Drosophil
ALO2816 Tetracdon
AL147405 Anopheles
AL147405 Anopheles
AL147405 Anopheles
AL147409 Prosophil
AL147509 OP21208 M
BM644509 OP21208 M
AL077118 Drosophil
AL099943 Drosophil
AL099943 Drosophil
AL099943 Drosophil
AL104915 Drosophil
AL106008 Drosophil
AL106009 Drosophil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSS 12-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   637 bp DNA linear GSS 12-MAY-200
CpG0925A CpIOWAgDNAl Cryptosporidium parvum genomic, DNA sequence.
A0411949.1 GI:4469673
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cryptosporidium parvum.

Cryptosporidium parvum.

Eukaryota, Alveodata; Apicomplexa; Coccidia; Eimerlida;

Eukaryota, Alveodata; Apicomplexa; Coccidia; Eimerlida;

Cryptosporididae; Cryptosporidium.

E 1 (basea 1 to 837)

S Strong, W.B. and Nelson, R.G.

Preliminary profile of the Cryptosporidium parvum genome: an expressed sequence tag and genome survey sequence analysis

Mol. Blochem. Parasitol. 107 (1), 1-32 (2000)

E 20183851

Contact: Nelson, R. G.

Depts. of Medicine & Pharmaceutical Chemistry

San Francisco General Hospital-University of California, San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                               CNS0100X
CNS013GO
CNS021CB
CNS021CB
CNS011TX
AZ197934
B1644509
B1644509
B1644509
CNS0118D
CNS00118D
CNS0118D
                                                                                                                                                                                                                                                                            737
807
1043
11203
11380
900
11101
855
811
855
811
857
870
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
AQ411949
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AQ411949 CpG0925A
AL064078 Drosophil
AL237857 Tetraodon
AL436389 T7 end of
AL419462 T3 end of
BH180166 016_I_02-
AL053767 Drosophil
AL07814 Drosophil
AL208513 Tetraodon
AL067527 Drosophil
AL208513 Tetraodon
AL067527 Drosophil
AL08536 Drosophil
AL065279 Drosophil
AL065279 Drosophil
AL065244 Drosophil
AL063444 Drosophil
AL053444 Drosophil
AL053446 Drosophil
                                                                                                              ; Search time 1099.55 Seconds (without alignments) 7647.311 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                     623
1 cctcaaatggtgabcatcaa......aaaaaaaaaaactcgag
                                                                                                                                                                                                                                                                                                                                            27472414
              GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd
                                                                                                                                                                                                                                                                                                        13736207 seqs, 6748477542 residues
                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                 2002, 23:27:34
                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                   nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNSO3CIW
CNSO3CIW
CNSO5ABZ
CNSO64S
BH180166
CNSO017
CNSO0154
AL525973
CNSO154
CNSO17V2
CNSO17V2
CNSO117V2
CNSO117V2
CNSO10PZ
CNSO
                                                                                                                                                                                                                                                      IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gb_gss:*
em_gss_hum:*
em_gss_lnv:*
em_gss_lnv:*
                                                                                                                                                                                                                                                                                                                                                                            length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_gas_vrt:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_esthum:
em_estin:
em_estin:
em_estou:
em_estoi:
em_estro:
em_htc::
gb_esti::
gb_esti::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length DB
                                                                                                                                                                                     US-09-881-556-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_estba:*
                                                                                                                 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 November
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq
Maximum DB seq
                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                        Scoring table:
```

..

Database

Result

Š

000

ð

ð g ò 셤 å 셤 å g ç 셤 ð 셤

```
Drosophila melanogaster genome survey sequence TET3 end of BAC # BACK08E08 of RPCI-98 library from Drosophila melanogaster (fruit AL064078 AL064078 GI:4941834
                                                                                                                                                                                                                                                                                                                               3
(http://sequence-www.stanford.edu/group/techdev/shear.htm ). The randomly sheared gDNA was chromatographed on Sephacryl S-400 to remove any small fragments and DNA eluting in the volud volume was subcloned into an EcoR V-digested, alkaline phosphatase-treated pBlueScript II (SK-) vector and transformed into E. coli strain XL2 Blue MRF'. Recombinant clones from the first plating of the library were selected for sequence analysis using T3 and T7 priners."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRX cedex - FRANCE (E-mail : seqref@genoscope.cns.fr)
BP 191 91006 EVRX cedex - FRANCE (E-mail : seqref@genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruiffly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Peiete de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo,
                                                                                                                                                                                                                                                                                                                                                                       263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                            264 AAGAAGGATTGGACTCAGAACG-TTACCAATCACTTCTACAGAAC-AAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              561
                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                    205 CTTCTGCTACTATACCAGAAACAGGATCCAGCTCAGATCACACT-CTGCTACTTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                            13 CTTCTGCTACTATACCAGAAACAGGATCCAGCTCAGATCACACTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGGGAAAAGGATAAAATGGTTGATGCTGAGCAAGTAATCACTAAAAATGACATTATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGATACTICGAAAGAAATTAGAAACAAAATGTAAAGTAICTGCATTGATAAATATGGCC
                                                                                                                                                                                                                                                                                                                          3;
                                                                                                                                                                                                                                                                                  Length 837;
                                                                                                                                                                                                                                                                                                                       2; Indels
                                                                                                                                                                                                                                                                           Score 361.8; DB 12;
Pred. No. 4.5e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAA 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTAGCCATTCCAAATATCTAAATTGTCAACTCAAGTAAAA 413
                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster
                                                                                                                                                                                                                                                                             58.1%;
98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fruit fly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope
                                                                                                                                                                                                           333
                                                                                                                                                                                                                                                                                                                          Matches 396;
                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                       Best Local
                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
CNS003B0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS 15-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone 014B14 of library G from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota: Metazoa: Chordata; Cranlata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthopterygii; Teleostei; Dercomorpha; Tetraodontiformes; Tetraodontidae; Tetraodon.

1 (bases 1 to 813)

Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C., Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and Weissenbach, J.

Charaterization and repeat analysis of the compact genome of the
NY. The library is named RPCI-98 and was constructed by partial BCORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; on bw sp, the same strain used for the BDGP's Pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                 203 ATCTTCTGCTACTATACCAGAAACAGGATCCAGCTCAGATCACACTCTGCTACTTCTCCA 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ANKKKKKKBYTTTYCCCNAAAYYBYBTCCCCCAAAAAGAANAAAAAGCAAAAACCCMA 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            263 GAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGC 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      562
                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  323 TACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              631 CAAAAAAATTAAAAAAAAAAAACCCCMCMACCCCCMMCACMCCCMCYMAYCCAMAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          503 AGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      383 TACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               443 TGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                        Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                            /organism-"Drosophila melanogaster"
/db_xxef="taxon:7227"
/clone_lib="RPCI-98"
/clone="BACROBEO8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Charaterization and repeat analysis of the or freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                             214;
                                                                                                                                                                                                                                                                                                                                        12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                        0.75;
                                                                                                                                                                                                                                                                               134 t
                                                                                                                                                                                                                                                                                                                                                                             42; Mismatches
                                                                                                                                                                                                                                                                                                                                      Score 60.8;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           813 bp
                                                                                                                                                                                                                                                           : TET3#
100 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS; genome survey sequence. Tetraodon nigroviridis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:7896992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                      9.8%;
                                                                                                                                                                                                                                                         /note="end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 813)
                                                                                                                                                                                                                                                                               143 c
                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 38.33
Matches 159; Conservative
                                                                                                                                                                1. .1101
                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL237857.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                 ĸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNSO3CIW
                                                                                                                                                                                                                                                                               553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL237857
                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
CNS03CIW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

m

```
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              531
    REFERENCE
AUTHORS
                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
CNS06X9S
                                                                                                                                                                                AUTHORS
                                                                                                                                                  MEDLINE
                                                                                                                                   JOURNAL
                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                        TITLE
                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                               Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetraodon nigroviridis
genome. For more information, please take a look at
http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNS07AB2 897 bp DNA linear GSS 08-JUL-2001 T7 end of clone BC0AA003A12 of library BC0AA from strain CBS 767 of Debaryomyces hansenli, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                   ö
Roest-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C., Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F., Saurin, W. and Weissenbach, J.
                                          Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Debaryomyces hansenii.
Debaryomyces hansenii
Eukaryota; Fungi; Ascomycota; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Debaryomyces.
1 (bases 1 to 897)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    608
                                                                                                                                                                                                                                                                                                                                                                                                                                309 AACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGT 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                 369 ANTICGAGITITAATACACTAAATCTICCAAATCAACCCAATCTITCACGCAAGCIGGCA 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lepingle, A., Casaregola, S., Neuveglise, C., Bon, E., Nguyen, H., Artiguenave, F., Wincker, P. and Gaillardin, C. Genomic exploration of the hemiascomycetous yeasts: 14.
                                                                                                                                                                                                                                                                             /clone_11b-"G"
/note-"Genoscope sequence ID : C0BG014DA07SP1-end :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         429 GATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          489 AATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                       Length 813;
                                                                                                                                                                                                                                                                                                                                                                                                 22; Mismatches 149; Indels
                                                                                                                                                                                                                   9.7%; Score 60.4; DB 12; 44.5%; Pred. No. 0.97;
                                                                                                                                                                                                                                                                                                                           ىد
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Debaryomyces hansenii var. hansenii
FEBS Lett. 487 (1), 82-86 (2000)
20584724
                                                                                                                                                                                                                                                                                                                         149 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL436389.1 GI:12219802
                                                                                       (bases 1 to 813)
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 44.5%
Matches 137; Conservative
                                                                                                                                                                                                                                                                                                                            152 c
                                                                                                                    Direct Submission
                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAAAAA 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAAWCAA 435
                                                                                                     Genoscope
                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNS07ABZ/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       428
 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                       JOURNAL
                                                                                                                                                                                                          FEATURES
                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
```

```
CNSO6X9S 1007 bp DNA linear GSS 06.JUL-2001 T3 end of clone AXOAA039F08 of library AXOAA from strain CBS 7064 of Pichia farinosa, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
2 (bases 1 to 897)
Societ, J.L., Aigle, M., Artiguenave, F., Blandin, G.,
Bolotin-Fukuhara, M., Bon, E., Brottler, P., Casaregola, S.,
Bolotin-Fukuhara, M., Bon, E., Brottler, P., Casaregola, S.,
de-Montigny, J., Dujon, B., Durrens, P., Lepingle, A., Llorente, B.,
Malpertuy, A., Neuveglise, C., Ozier-Kalogeropoulos, O., Potler, S.,
Saurin, W., Tekalan, F., Toffano Nioche, C., Wesolowski-Louvel, M.,
Wincker, P. and Weissenbach, J.
Genomic exploration of the hemisscomycetous yeasts: 1. A set of
yeast species for molecular evolution studies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291 AATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAAT 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          351 CATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAAT 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    411 CTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 897;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels

    897
    /organism-"Debaryomyces hansenii"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.5%; Score 59.4; DB 12;
llarity 45.9%; Pred. No. 1.4;
Conservative 13; Mismatches 164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             590 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /strain="CBS 767"
/varlety="hansenil"
/db_xref="taxon:4959"
/clone="BCOAA03A12"
/rote="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        591 ACTCAAGTAAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47 9
                                                                                                                                                                                                                      (bases 1 to 897)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70 c
                                                                                                                                                                                                                                           Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 150; Conserv
```

4

```
Best Local Similarity 42.6
Matches 133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L. .725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151
                                                                AA 615
                                                                                                        AA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                  RESULT 6
BH180166/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                             DEFINITION
                                                                614
                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                        442
                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              425
                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                à
                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L SUBMITTED (108-SEP-2000) Genoscope - Centre National de Sequencage, 2 tue Gaston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (B-mail: Seqref@enoscope.cns.fr. - Web: www.genoscope.cns.fr. |
This GSS is part of a random genomic sequencing program of thirteen yeast species: Saccharomyces bayanus var. uvarum. Saccharomyces servazzil. Zygoasccharomyces rouxil, Saccharomyces Kluyveromyces thermotolerans, Kluyveromyces thermotolerans, Kluyveromyces angusta, Debaryomyces hansenii. Ausnematical sorbitophila, Candida tropicalis and Yarromia lipolytica. Genomic inserts of 3 to keywords for description of this sequence and for the sequence of the other extremity of this insert.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ï
                                                                                                                                                                                                                                                                               2 (bases 1 to 1007)
Souciet, J.L., Aigle, M., Artiguenave, F., Blandin, G.,
Bolotin-Fukuhara, M., Bon, E., Brottier, P., Casaregola, S.,
de-Montigny, J., Dujon, B., Durrens, P., Lepingle, A., Llorente, B.,
Malpettuy, A., Neuveglise, C., Ozier-Kalogeropoulos, O., Potier, S.,
Sautin, W., Tekaia, F., Toffano-Nioche, C., Wesolowski-Louvel, M.,
Wincker, P. and Weissenbach, J.
                                                        Pichla farinosa.

Pichla farinosa.

Eukaryota; Funga; Ascomycota; Saccharomycotina; Saccharomycetes; Saccharomycetales; Saccharomycetaceae; Pichia.

1 (bases 1 to 1007)

de Montigny, J., Spehner, C., Souciet, J., Tekaia, F., Dujon, B., Wincker, P., Artiguenave, F. and Potier, S.

Genomic exploration of the hemiascomycetous yeasts: 15. Pichia
                                                                                                                                                                                                                                                                                                                                                                                                                         Genomic exploration of the hemiascomycetous yeasts: 1. A set of yeast species for molecular evolution studies FEBS Lett. 487 (1), 3-12 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             143 AAAAAAAATWAAAAWTAAAWMAAAAAATATAAAGTTTAAAAAAGWAAAGAGAAATGA 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374 GAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGT 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203 WAAAWTAAAMAWMAWAAACAMGTRCATGTWCMWGGTGATGAWMGTRAWTATWAWGAWAA 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     263 ARAWARTAAWGGWTAAAGMWAWAAWAAAAAWAGAAGWGGTTATAAWAAWAAWAAWAAWAA 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     314 AAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTC 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                434 GGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGA 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             494 CATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAA 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 12; Length 1007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.5%; Score 59.2; DB 12;
40.7%; Pred. No. 1.4;
tive 45; Mismatches 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Pichia farinosa"
                                                                                                                                                                                                                                       FEBS Lett. 487 (1), 87-90 (2000) 20584725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /strain="CBS 7064"
/db_xref="taxon:4920"
/clone="AX0AA039F08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="AX0AA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="end : T3"
AL419462
AL419462.1 GI:12202640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 1007)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 40.7%
Matches 123; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1007
                                                                                                                                                                                                                           sorbitophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                       KEYWORDS
SOURCE
ORGANISM
  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                  MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
```

```
/clone_inc-
/sex=mixed=
/dev_stage="corcariae"
/dev_stage="corcariae"
/lab_host="Biomphalaria glabrata"
/note="Vector: pBeloBAC 11: Site_1: Hind III: Partially
Hind III digested and size-selected S. mansoni corcarial
BNA was ligated into Hind III digested pBeloBAC 11 vector
and used to transform E. coli DH10B. The complete library
contains 23808 clones from 4 independent
sizing-ligation-transformations. Average insert size
ranges from 70-127 kb and genome coverage is 7.9-fold."
52 c 39 g 420 t 63 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schistosoma mansoni.
Schistosoma mansoni.
Schistosoma mansoni
Bukaryota; Metazoa: Platyhelminthes; Trematoda; Digenea;
Strigeidida; Schistosomatoidea; Schistosoma.
1 (bases 1 to 725)
Le Paslier,M.-C., Pierce,R.J., Merlin,F., Hirai,H., Wu,W., Williams,D.L., Johnston,D., LoVerde,P.T. and Le Paslier,D.
Construction and characterization of a Schistosoma mansoni
bacterial artificial chromosome library
Genomics 65 (2), 87-94 (2000)
                                                                                                                                                                                                                                                                                           интвитер 125 bp DNA linear GSS 19-OCT-2001
016_L_02-21 SmBAC1 Schistosoma mansoni genomic clone 016I02 5', DNA
GGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCAC 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305 AACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 AGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Institut Pasteur de Lille

1 rue du Professeur A. Calmette, 59019-Lille, France

Tel: (33) (0)3 20877883

Fax: (33) (0)3 20877888

Email: Raymond.Pierce@pasteur-lille.fr

CNS sequencing ID-DGOAAO16BEDICP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 725;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.3%; Score 58; DB 12; Length 72
42.6%; Pred. No. 2.4;
tive 27; Mismatches 152; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Schistosoma mansoni"
/strain="Puerto-Rican"
/db_xref="taxon:6183"
/clone="016102"
/clone_lib="SmBAC1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 725.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plate: 016 row: I column: 02
Seq primer: M13 -21 primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20247247
Other_GSSs: 016_I_02-rev
Contact: Pierce RJ
INSERM U 167
                                                                                                                                                                                                                                                                                                                                               sequence.
BH180166
BH180166.1 GI:16281799
```

ហ

Mon Nov

```
332 TAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAA
                                                                              392 TCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAA
                                      Best Local S1m
Matches 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
CNSOOLT2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                      셤
                                                                              ò
                                                                                                                g
                                                                                                                                                            ò
                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submitselon

Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
Br 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).

The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osocgawa and Aaron Mammosor in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo.

NY. The library is named RPCI-98 and was constructed by partial EcokI digestion of Drosophila DNA provided by the BDGP from the 1sogenic strain y2: cn bw sp, the same strain used for the BDGP's pland BST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library or filters for hybridization from the BACPAC Resource Center can be found at http://dacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster genome survey sequence TET3 end of BAC # BACK19122 of RPCT-98 library from Drosophila melanogaster (fruit AL053767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604
                                                                                                                                                            212 TACTATACCAGAAACAGGATCCAGCTCAGATCACACTCTGCTACTTCTCCAGAAGAAGGA 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      792 TKMBAAAKAAABAAAANSNKCSAATNABSKCAAKAAAASCTTVMTCTCTAAATAAABAAA 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272 TIGGACTCAGAACGTIACCAATCACTICTACAGAACAAACTCAAAGCCAGCTACATATCC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterryota; Neoptera; Endopterygota; Ditera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                       485 TAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTG
                                                                                               545 CATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.2%; Score 57.2; DB 12; Length 891; 36.2%; Pred. No. 3.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       228 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55; Mismatches 204; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism-"Drosophila melanogaster"
/db_xref="texon:7227"
/clone_llb="RPCI-98"
/clone="BACR19122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL053767.1 GI:4935142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Simitaricy .... Matches 147; Conservative
                                                                                                                                                                                                                     605 AAAAAAAAA 616
                                                                                                                                                                                                                                                           263 AAAAAAAAAA 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fruit fly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                       RESULT 7
CNS009JU/c
                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                දු
                                                                                             g
                                                                                                                                       ð
                                                                                                                                                                           a
                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                         õ
                                                                                                                                                                                                                     ð
```

```
AL SUBJECT SUBMISSION

AL SUBMISSION

AL SUBMISSION

By 101 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Otermination of this BAC-end sequence was carried out as part of a collaboration with the Backeley Drosophila Genome Project (BDCP).

The BDCP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDCP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Placer de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial Ecost digestion of Drosophila DNA provided by the BDCP from the BDCP stom the BDCP stom the BDCP stom the BDCP from the BDCP and how to order individual BAC clones, the ontire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster genome survey sequence TET3 end of BAC:
BACK48819 of RPCI-98 library from Drosophila melanogaster (fruit ALO)78714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1072 MMMMMAMAMMCMCMCMCMCMCHMCAAMMMHTHHMMMMMMMMAMMMMMMM 1013
                                                                 552 AGAAGAAGGGRAAAMCTYACMCCTCRYTAMAAAWTAAAACTTAAYWATAATAAAAAATTA 493
                                                                                                                                                                                                      492 AWATTAAAAAAAAAAAAAATCTTMHAAATCYWAAAAAAAAAATCAAATMYTAAAAYAYAY 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fruit fly.
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterryota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Epiydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36 CAAGCCCCTATTACCTCACCAGAAACGAATCAAGTTCAAATCATCTTCTGTGACAGTT 95
452 GGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTC
                                                                                                                                     512 GAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                           /organism-"Drosophila melanogaster"
/db_xref-"taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. 9.2%; Score 57.2; DB 12;
Similarity 19.9%; Pred. No. 2.8;
16; Conservative 193; Mismatches 273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      151 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone-"BACR48P19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL078714.1 GI:5102004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note-"end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ပ
ဖ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

셤 ò g ò g ò g ò a ð g õ g ò 셤 ò 셤

```
/note="end : SP6"
219 c 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                  266 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
AL525973/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                  BASE COUNT
                                                                                                                                                                                                                                                       731
                                                                                                                                                                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                 g
                                                                                                                                                                                                                                                   g
                                                                                                                                               å
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          입
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage : Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqrefégenoscope.cns.fr Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebl.ac.uk -, This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS 26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster genome survey sequence SP6 end of BAC BAC BACN13C23 of DrosBAC library from Drosophila melanogaster (fruit fly), genomic survey sequence.

AL105023
AL105023
GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                         515
                                   CAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTT 395
                                                                                                                                                                                                                                                                                                                                               713
                                                                                                                                                                                                                                                                                                                                                                                   455
                                                                                                                                                                                                                                                                                                                                                                                                                     653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             592 АААМАГТАААААМТТИТТАМТТАМТИМАМНАМАТИМААММАААААААТАТТААТИАА 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterrygota; Neoptera; Endopterygota; Ditera; Brachycera; Muscomorpha; Ephydroidea; Drosophilldae; Drosophila.
                                                                                                                                                                                   CCAGATACTGGATCAGTTCAAATCTCCTTCTGTTACTATTCCAGAGACTGGATCAGACTC
                                                                                                                        952 МИАМИАМИССИСИСИМИССИМИМИССССИСМИМИМИТЕТЕТНИНИМССИСИСИСИСИСИ
                                                                                                                                                              216 ATACCAGAAACAGGATCCAGCTCAGATCACACTCTGCTACTTCTCCAGAAGAAGGATTGG
                                                                                                                                                                                                                                  276 ACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAAC
                                                                                                                                                                                                                                                                                                                                                                               CCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAAGGTTATGGGGAAAAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAA
                                                                                      156 AGATCACGCGCTTGTGACAATTCCAGAGACTGGATCAGTTCAAATCATCTTCTGCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           516 GAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1. 1001
| .. 1001
| / reganism="Drosophila melanogaster" / plasmid="pBeloBAC11" / clone="lib="DrosBAC" / clone="lib="DrosBAC" / clone="BACN13C23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fruit fly.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BeloBAC11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                               366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
               96
                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                           772
                                                                                                                                                                                                                                                                                                                                                                                                                                                     456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
CNS0155H
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
```

COMMENT

```
/tissue_type="neuroblastoma cells"
/lab_host="DH10B"
/lab_host="DH10B"
/note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA
was primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco RV sites of the pcMVSPORT 6
vector. Library was normalized. Library was constructed
by Life Technologies. Contact: Feng Liang Life
Technologies. Contact: Feng Liang Life
Technologies. a division of Invitrogen 9800 Medical Center
Drive Rockville, Maryland 20850, USA Fax: (1) 301 610
8371 Email: filang@ilfetech.com URL:
http://fulllength.invitrogen.com"
19 a 80 c 6 g 443 t 136 others
                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 784 bp mRNA linear EST 13-FEB-2001
Homo sapiens CDNA clone CSODC015YJ02 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             910
                                                                                                                                                                              304 GAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGG 363
                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                              364 AAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGC 423
                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Emall: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAA
                                                                                                                              ;
0
                                                                             Length 1001;
232 others
                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Verte
Mammalia; Eutheria; Primates; Catarrhini; Hon
1 (bases 1 to 784)
Lii,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                        Query Match 9.1%; Score 56.8; DB 12; Best Local Similarity 34.7%; Pred. No. 3.4; Matches 109; Conservative 60; Mismatches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..784
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="CSODC015x102"
/clone=lib="LTI_NFL003_NBC3"
/sex="male"
Ļ
150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
  þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL525973
AL525973 LTI_NFL003_NBC3
prime, mRNA sequence.
AL525973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL525973.1 GI:12789466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | :|:||:||
ATWAWAAWWAWATA 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                604 AAAAAAAAAAAA 617
```

us-09-881-556-4.rst

ò g g õ q

õ

qq ò a õ a

ò

```
/clone_lib="G"
/note="Genoscope
166 c 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8.98;
                                                                                                                                   41.98;
                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fruit fly.
                                             311 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genoscope
                                                                                                                                                     98;
                                                                                                              Query Match
                                                                                                                                   Local
                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNS007G4
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GSS; genome survey

GSS; genome survey

Tetraodon nigroviridis.

Tetraodon nigroviridis.

Tetraodon nigroviridis.

Eukaryota: Metazoa: Chordata: Cranlata: Vertebrata: Buteleostomi;

Actinopterygli: Neopterygli: Teleostei: Euteleostei: Neoteleostei:

Tetraodontidae: Tetraodon.

E 1 (bases i to 1013)

S Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C.,

Melssenbach, J. Billault, A., Quetler, F., Saurin, W., Bernot, A. and

Welssenbach, J. Greshwater analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetraodon nigroviridis
genome. For more information, please take a look at
http://www.genoscope.cns.fr/Tetraodon.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CNSO2PVS 14-MAY-2000 Tetraodon nigroviridis genome survey sequence T7 end of clone 156J11 of library G from Tetraodon nigroviridis, genomic survey
                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scost-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C., Bernot, A., Fizames, C., Wincker, P., Brottler, P., Quetler, F., Saurin, W. and Weissenbach, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                              301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                       361 AAAAWAATAACMAAMARMAMAAMAATGRAAAATAAAAAAMAMAARAAGAAATARTAA 302
                                                                                                                                                                                                                    361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                             301 AAAMMAMARAAAAMARMRAAATTAARAAGATWGWGWAAAAAAAATWAGTGTAAATMT 242
                                                                                                                                                                                                                                                                                                        AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                                                                                                 241 AGTGRRAAAWATTAAAATTARTAACAMAAATATTAMMMMAAGAAGAAGAAGAAAAT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA
                                                                                        ö
                                             Length 784;
                                          Query Match 9.0%; Score 56.2; DB 9; Length 7 Best Local Similarity 38.2%; Pred. No. 4.6; Matches 121; Conservative 44; Mismatches 152; Indels

    .1013
    .Coganism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="155311"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL208513.1 GI:7867332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 1013)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601 AAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL208513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
CNS02PVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
  ORIGIN
```

```
Direct Submission

L Submitted (02-JNW-1999) Genoscope - Centre National de Sequencage :

By 191 91006 EWYR cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Genetical of this BAC-and sequence was carried out as part of collaboration with the Berkeley Drosophila Genome Project (BDGP).

The BDCP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDCP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoogawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain visc or the BDCP's pland EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://Dacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSS 03-JUN-1999
                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila melanogaster genome survey sequence T7 end of BAC # BACR15P23 of RPCI-98 library from Drosophila melanogaster (fruit AL067527
sequence ID : COAG156CE06LP1-end : T7°
g 288 t 138 others
                                                                                                                                                                                                                                                                 446 GGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGA 505
                                                                                                                                                                                                                                                                                                                                                                            506 TACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAG 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 386 ACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGG 445
                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pteryota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

1 (bases 1 to 576)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                Length 1013;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 576;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organ1sm-"Drosophila melanogaster"
/db_xref-"taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
                                                                                                                                                                        :66
                                                                                                                9.0%; Score 55.8; DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55.6; DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ų
                                                                                                                                              Pred. No. 4.9;
                                                                                                                                                                        37; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_11b="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone-"BACR15P23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note-"end : T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL067527.1 GI:4945687
```

854

œ

```
540 ATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTA
                   CAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTCACGC
                                                                                      AAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTA
                                                                                                                     LOCUS
                   360
                                                                                      420
                                                                                                                                                                                      913
                                                                                                                                                                                                                                                         853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
CNS008K5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                    à
                                                                                                                  셤
                                                                                                                                                     ò
                                                                                                                                                                                      a
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr - Web : www.genoscope.cns.fr]

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebl.ac.uk - This Drosophila melanogaster BAC |

- Ilibrary (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
 ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSS 26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drosophila melanogaster genome survey sequence SP6 end of BAC BACW37L10 of DrosBAC library from Drosophila melanogaster (fruit fly), genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           450
                                                                                                                                                                                      271 ATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATC 330
                                                                331 CTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAA 390
 Gaps
                                                                                                                                                                                                                                                                                                                                      425 АСААААААММААААWCAGTWATAAWATTATAAAAMWAAWMAAMAAAAAAAAAAAA 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300 TACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAAT 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fruit fly.
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                   391 ATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAA
                                                                                                                                                                                                                                                                                                      511 CGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATT
                                                                                                                                                                                                                                     451 AGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1101;
                                                                                                                                                                                                                                                                                                                                                                         618
                                                                                                                                                                                                                                                                                                                                                                                            179 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                       /organism="Drosophila melanogaster"
/plasmid="pBeloBAC11"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.9%; Score 55.6; DB 12;
40.9%; Pred. No. 5.1;
iive 33; Mismatches 155;
Mismatches 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        366 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="DrosBAC"
/clone="BACN37L10"
/note="end : SP6"
a 174 c 114 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL108536.1 GI:5628840
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genoscope.
147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNS017V2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                    q
                                                                                                    ò
                                                                                                                                 엄
                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
```

```
- Web: www.genoscope.cns.france (E.Mail : Sequeregenoscope.cns.ir explaints)

- Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Plater de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is ammed RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's PI and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://doces.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                          Drosophila melanogaster genome survey sequence TET3 end of BAC # BACKI'M14 of RPCI-98 library from Drosophila melanogaster (fruit AL052179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr
276 ACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAAC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterryota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 430;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8.9%; Score 55.4; DB 12; Length 42.7%; Pred. No. 7.6;
Live 17; Mismatches 179; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Drosophila melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="RPCI-98"
/clone="BACR17M14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:7227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="end : TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fruit fly.

Drosophila melanogaster
Eukaryota, Metazoa, Artl
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL052179.1 GI:4933829
                                                                                 600 AAAAAAAAAAAAAA 617
                                                                                                                 Query Match
Best Local Similarity 42.7%
Matches 146; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                331
```

σ

```
Search completed: November
Job time: 1112.55 secs
 Matches 141;
                                                                                                                                                                                      382
                                                                                                           ò
                                                                                                                                               g
                                                                                                                                                                                      ò
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetraodon nigroviridis
genome. For more information, please take a look at
http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNSOlUPZ 581 bp DNA linear GSS 12-MAY-2000 Tetraodon nigroviridis genome survey sequence PUC-Orl end of clone 197Ml7 of library G from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthomorpha; Acanthomorpha; Acanthomorpha; Acanthomorpha; Tetraodontiformes; Tetraodontidae; Tetraodon.

Tetraodontidae; Tetraodon.

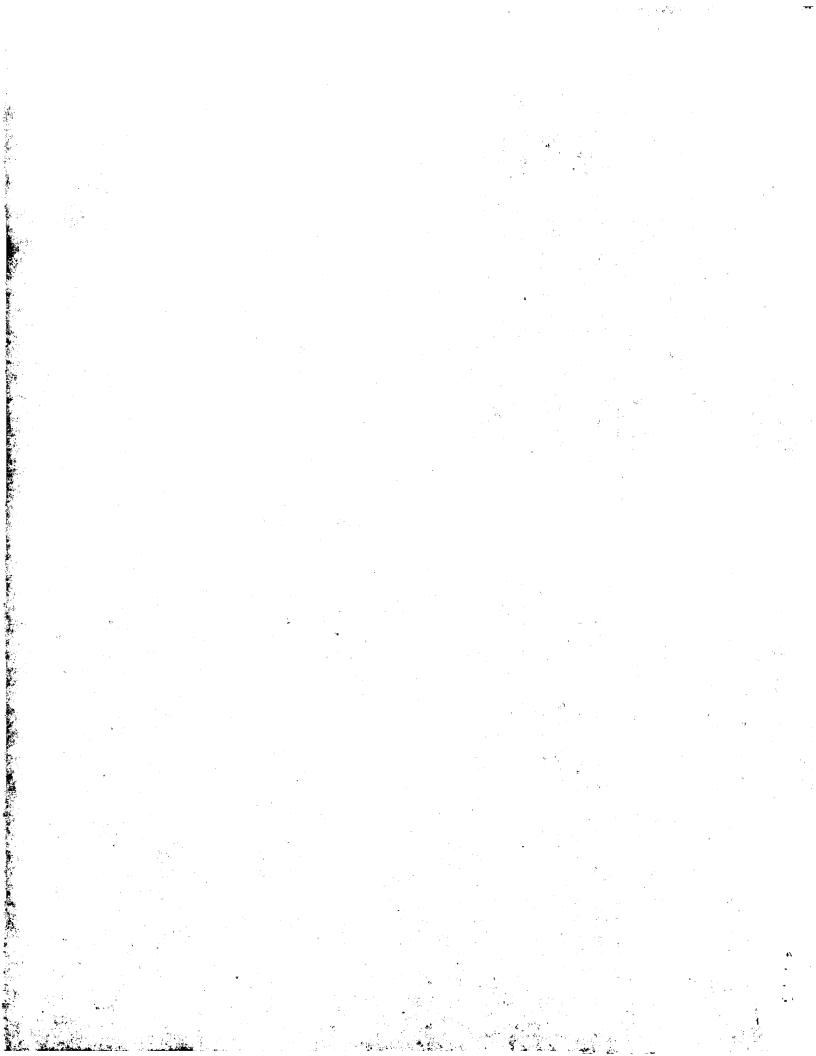
Tobasa; 1 to 581)

Roest-Crollius, H., Jallon,O., Dasilva,C., Fizames,C., Fisher,C., Bouneau,L., Billault,A., Quetler,F., Saurin,W., Bernot,A. and Weissenbach,J.

Charaterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 581)
cost.crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,
Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,
Saurin, W. and Weissenbach, J.
                                                                                                                                                                                      515
                                                                                                                                                                                                                           246
                                                          455
                                     336 CAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTT 395
                                                                                                                                               127 AARAWAAACCAAAAAAAMCCAAAAGAAAAWAWAAATAAAGRARAAWAGGGRAAAATAA 186
                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : C0AG197AG09SP1~end :
7 ACAGAGAAMATGAANANNCACNNNNANAAACCCAANANACANAACACAGCAAATCAAAGA
                                                                                                         396 CCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGAT
                                                                                                                                                                                      AAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAA
                                                                                                                                                                                                                       516 GAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 12; Length 581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            others
                                                                                                                                                                                                                                                                                                                                   /organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="197M17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="G"
/note="Genoscope sequence ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.2; DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ļ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSS; genome survey sequence.
Tetraodon nigroviridis.
Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL168128.1 GI:7806185
GSS; genome survey sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8.9%;
39.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 581)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PUC-Or1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                    456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNS01UPZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                         g
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                              a
                                   õ
                                                                    g
                                                                                                  ò
                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                   ö
```

```
ö
                                                                                                                                                                         442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG 501
                                                                                         322 CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                  AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGCCC 561
                                                                                                                                                                                                                                                                                                  262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                            Gaps
                                                                                                             ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTT
                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                           Indels
Mismatches 192;
23;
Conservative
```

2, 2002, 01:47:26



```
; Search time 2065.61 Seconds (without alignments) 7331.704 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                               US-09-881-556-3
700
1 gaattcggcacgagattttt.....accgcatcctacagaaaagc 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pending_Patents_NA_Main:*

| cgn2_6/ptodata/1/pna/USO6_CCMB.seq:*
| cgn2_6/ptodata/1/pna/USO6_CCMB.seq:*
| cgn2_6/ptodata/1/pna/USO8_CCMB.seq:*
| cgn2_6/ptodata/1/pna/USO8_CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / cgn2_6/ptodata/1/pna/US097_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US097_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098C_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
/ cgn2_6/ptodata/1/pna/US098_COMB.seq:*
GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21979536 seqs, 10817449327 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                       1, 2002, 23:16:04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                            OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length: 0
Length: 2000000000
                                                                                                                                                                                                                                                November
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB seq
DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                              Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MInimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maximum
                                                                                                                                                                                                                                                ou:
```

```
cgn2_6/ptodata/1/pna/US6005_COMB.seq:*
cgn2_6/ptodata/1/pna/US6006_COMB.seq:*
cgn2_6/ptodata/1/pna/US6006_COMB.seq:*
cgn2_6/ptodata/1/pna/US6008_COMB.seq:*
cgn2_6/ptodata/1/pna/US6009_COMB.seq:*
cgn2_6/ptodata/1/pna/US6010_COMB.seq:*
cgn2_6/ptodata/1/pna/US6011_COMB.seq:*
cgn2_6/ptodata/1/pna/US6011_COMB.seq:*
cgn2_6/ptodata/1/pna/US6015_COMB.seq:*
cgn2_6/ptodata/1/pna/US6015_COMB.seq:*
cgn2_6/ptodata/1/pna/US6015_COMB.seq:*
cgn2_6/ptodata/1/pna/US6015_COMB.seq:*
cgn2_6/ptodata/1/pna/US6015_COMB.seq:*
cgn2_6/ptodata/1/pna/US6012_COMB.seq:*
cgn2_6/ptodata/1/pna/US6012_COMB.seq:*
cgn2_6/ptodata/1/pna/US6012_COMB.seq:*
cgn2_6/ptodata/1/pna/US6012_COMB.seq:*
cgn2_6/ptodata/1/pna/US6021_COMB.seq:*
cgn2_6/ptodata/1/pna/US6021_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6022_COMB.seq:*
cgn2_6/ptodata/1/pna/US6032_COMB.seq:*
cgn2_6/ptodata/1/p
             4444446555
4444446555
444446555
4444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
444655
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
44465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4465
4665
4665
4665
4665
4665
4665
4665
4665
4665
4665
4665
4665
4665
4
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	1	Sequence 7835, Ap Sequence 17885, A Sequence 5928, Ap	6627, 5285,	7228	Sequence 22, Appl Sequence 11234, A		Sequence 44113, A		Sequence 330054, Sequence 63174. A		748		Sequence 32426, A	Sequence 110751,	36, App	2813,		Sequence 12204, An	274601	4	Sequence 10503, A
SUMMARIES	US-09-881-556-3 US-09-865-419A-12796	US-UY-823-3UL-7835 US-09-669-817A-17885 US-09-865-419A-5928	09-388-907-6627 09-666-355A-528	US-10-021-323-7228 US-60-255-619-7228	US-60-258-273-22 US-09-480-902-11234	US-09-960-352-11234	US-09-394-743-44113 US-09-565-306-68010	US-09-654-617-330054	US-09-684-016-330054 US-60-197-872-63174	09-806-708A-22	US-60-197-872-74895	US-09-887-272A-5263	US-60-140-769-32426	US-09-865-439A-110751	US-08-358-918-36	US-09-621-976-2813	US-00-14/-499-2813	US-09-726-802-1504	US-09-521-640-274601	-60-207-458-4	US-60-253-652-10503
DB		79 E	17 26	37	64 18	36	55	25	27	31	28	9 9	23	33	۲.	7 5	2 0	2 6	13	29	64
% Query Match Length DB	700	236 236 236	252 445	537	46657	419	4 5 3	423	423 552	1141	412	2000	445	541	605	832	200	874	978	510	399
s Query Match	100.0	- 10 to	7.2	7.1	0.0	9.0	, o.	6.9	o o	6.9	6.9	o d	9.0	6.8	9.9	æ (9 4	. 6	6.7	9.9	9.9
Score	700	52.6 51.6	50.2	20 20	49.2	48.6	40.4		48.4		48	4B	47.8	47.8		47.6	0.4	4.6	46.6	46.4	46.2
Result No.	0	ถ บ ล เก		ထတ					c 16				0 25						c 29	30	31

/cgn2_6/ptodata/1/pna/US101_COMB.seq:*/cgn2_6/ptodata/1/pna/US6000_COMB.seq:*/cgn2_6/ptodata/1/pna/US6001_COMB.seq:*/cgn2_6/ptodata/1/pna/US6002_COMB.seq:/cgn2_6/ptodata/1/pna/US6003_COMB.seq:/cgn2_6/ptodata/1/pna/US6004_COMB.seq:/cgn2_6/ptodata/1/pna/US6004_COMB.seq:

us-09-881-556-3.rnpm

540

900 900

```
TTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCA
                                      TAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAG
                                                                                                                                                       AAGCCTCATCCAGTTGTTAGACCGCATCCTACAGAAAGC 700
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 143; Conserv
                                                                                                                                                                                                                                                                                                                                              ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             us-09-823-301-7836/c
                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                      481
                                                                                                                                               661
                                                                                                                                                                 661
                    421
                                      481
                                                                         541
   421
                 g
                                      ð
                                                   g
                                                                        ò
                                                                                        g
                                                                                                           à
                                                                                                                         g
                                                                                                                                               õ
                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
Sequence 259577,
Sequence 259449,
Sequence 8353, Ap
Sequence 67534, A
Sequence 67534, A
Sequence 1119, Ap
Sequence 317618,
Sequence 317618,
Sequence 317618,
Sequence 317618,
Sequence 11853, A
Sequence 11813, A
Sequence 11813, A
Sequence 11813, A
Sequence 11813, A
                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                       APPLICANT: Simonsen, J. Nell
TITLE OF INVENTION: Cryptosporidium Parvum Antigens, Antibodies Thereto and
TITLE OF INVENTION: Diagnostic and Therapeutic Compositions Thereof
TITLE OF INVENTION: Diagnostic and Therapeutic Compositions Thereof
FILE REFERENCE: 9000-0054
CURRENT APPLICATION NUMBER: 0S/09/881,556
CURRENT FILING DATE: 2010-109-10
PRIOR FILING DATE: 2000-06-15
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PATCHIN VET. 2.1
SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTACTAAATTCGAAATTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITICIATACAAAAACATGITITGAAAAGAATGAAGCACATTGICITAAACCCTTTAAATC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAATTCGGCACGAGATTTTTTTTTTTTTTTACCTATTTCAATTAGTTTCTTTGATTCAA 60
                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Description of Artificial Sequence:C. Parvum AG2 US-09-881-556-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATATTTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTG
                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                       Length 700;
                                                                                                                                                                                                                                                                                                                                                                                         Indels
US-09-304-517A-259577
US-09-985-678-259577
US-09-911-146A-259449
US-09-565-240-8933
US-09-654-617-67534
US-09-684-016-67534
US-09-684-016-71316
US-09-654-617-317618
US-09-684-016-717618
US-09-394-745-12853
US-09-365-306-33296
US-09-855-306-33296
US-09-824-130-4331
                                                                                                                                                                                                                                                                                                                                                                      cch 100.0%; Score 700; DB 33; 11 Similarity 100.0%; Pred. No. 9.6e-116; 700; Conservative 0; Mismatches 0;
                                                                                                                                               ALIGNMENTS
                                                                                                                                                                                         Sequence 3, Application US/09881556 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
 34
117
122
223
223
224
227
33
33
31
 4418
44466
44466
44466
3319
3319
3339
3339
3339
 C ID NO 3
LENGTH: 700
                                                                                                                                                                                US-09-881-556-3
 Query Match
Best Local Si
Matches 700)
                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
 0 0 0 0 0 0 0 0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
Other Molecules Associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               373 ATTAICTITICCTIACAIGGAATAACIGCATICTIGGATATATICCAATTAACACAAATA 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        433 AAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAATTGGATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493 GGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAAAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            553 GCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     613 ACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.8%; Score 54.8; DB 33;
49.3%; Pred. No. 3.4;
iive 0; Mismatches 147;
                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Clone ID: LIB3236-147-P1-N1-H5 US-09-865-419A-12796
                                                                                                                                      and
US-09-86-419A-12796/C
Sequence 12796, Application US/09865419A
GENERAL INFORMATION:
APPLICANT: Conner, Timothy W.
APPLICANT: Conner, Timothy W.
TITLE OF INVENTION: Nucleic Acid Molecules and TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(51935)B;
CURRENT APPLICATION NUMBER: US/09/865,419A
CURRENT APPLICATION NUMBER: US 60/208,063
PRIOR PELING DATE: 2001-05-29
PRIOR FILING DATE: 2000-05-31
NUMBER OF SEQ ID NOS: 54020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 7836, Application US/09823301
; GENERAL INFORMATION:
; APPLICANT: Shyjan, Andrew W.
```

m

55.1%;

```
Best Local Similarity 55.1 Matches 103; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        465
                                                                                                                                                                                 49
                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                                               504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 17885, Application US/09669817A

Sequence 17885, Application US/09669817A

GENERAL INFORMATION:
APPLICANT: Byrum, Joseph R.
APPLICANT: Wallick, C. Kevin
TILE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
TILE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
TILE OF INVENTION: Plants
FILE REFERENCE: 38-21(51469)B

CURRENT PAPLICATION NUMBER: US/09/669,817A

CURRENT FILING DATE: 2001-09-26

PRIOR FILING DATE: 1999-09-30

NUMBER OF SEQ ID NOS: 43701

SEQ ID NO 17885

LENGTH: 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        380 TITCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAA 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          440 CAAAATTICICITIGAAAGTICCGGAGAAAACTCAATCTCCACAATTGGATATIGGAGTAT 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 AAAATNITITITITITITITITANAAATANNTITITAAAANTITITAAAANNGNITAA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAACTCAACAAATC 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320 TTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCT 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATCGATGGATTTTCTTCTTCTTTAATTAAACATGCGCCTATAAAAGAAAATGGCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 481;
## APPLICANT: MACBETh, Kyle J.
### TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
### TITLE OF INVENTION: THEREFOR
### FILE REFERENCE: 1600.2085-001
### CURRENT APPLICATION NUMBER: US/09/823,301
### CURRENT FILING DATE: 2001-03-30
### PRIOR FILING DATE: 2000-03-31
### NUMBER OF SEQ ID NOS: 10002
### SEQ ID NO 7836
### LENGTH: 481
### TYPE: DNA
### OF TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 53.6; DB 31;
Pred. No. 5.9;
0; Mismatches 193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     620 CAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : OTHER INFORMATION: Clone ID: uC-osflcyp022e09b2
US-09-669-817A-17885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: mlsc_feature
; LOCATION: (1)...(481)
; OTHER INFORMATION: n = A,T,C or G
US-09-823-301-7836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 43.1%;
Matches 146; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

Length 236;

Score 52.6; DB 26;

7.58;

Query Match

```
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with TITLE OF INVENTION: Plants FILE REFERENCE: 38-21(51935)B CURRENT APPLICATION NUMBER: US/09/865,419A CURRENT FILING DATE: 2001-05-29 PRIOR RILING DATE: 2001-05-31 NUMBER OF SEQ ID NOS: $4020 SEQ ID NOS: $4020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                      ö
                                                                                                                                              544 AAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCA 603
                                                                                                                                                                  CTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAAG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                342 AAAAATAAAAATTATTAAATTAAANATATTTAAAAAATTTTAAAAATAAANAATT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAACTCCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTTCTTCTTCTTTA 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           585 AAATGAAATAATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAAC 644
                                                              ттттттттттттттттттттттттттттттттттттт
                                                                                                                                                                                                                                                                         345 ACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATT 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          405 CTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGA 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTAAACATGCGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCA 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 51; DB 33; Length 362;
Pred. No. 16;
0; Mismatches 168; Indels
                      84; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: unsure

: LOCATION: (1)..(362)

: OTHER INFORMATION: unsure at all n locations

: OTHER INFORMATION: Clone ID: LIB3236-069-P1-N1-G7

US-09-865-419A-5928
Pred. No. 8;
0; Mismatches
                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 7.3%;
Best Local Similarity 47.2%;
Matches 150; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | || |||| |||| |||| 42 AAAAAAAAAAAAAAA 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                        664 CCTCATC 670
                                                                                                                                                                                                                                                                                                                                                                229 TATAATC 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

us-09-881-556-3.rnpm

```
APPLICANT: Feng, Paul C.C.
APPLICANT: Feng, Paul C.C.
APPLICANT: Ziegler, Todd E.
FICHER FENGLER, Macleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(52274)B
CURRENT APPLICATION NUMBER: US/10/021,323
CURRENT FILING DATE: 2001-12-12
PRIOR PELICATION NUMBER: US 60/255, 619
PRIOR FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 17880
SEQ ID NO 2228
601 CCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACA 660
                                                                                                                                                                                                       76 TATTIGITITAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGAAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136 ITAAATTTGAGCTTGGTTGATAAATGGTAGTTGGCTCGAGGTGATATTTTTATCCTTG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196 ATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAAA 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           256 CATGITITGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAAA 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16 TITITITITITITITACCIAITICAALTAGITICITIGALTCAAACGAIGCAAAGICAT 75
                                                                               TAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAG
                                      Query Match 7.1%; Score 50; DB 37; Length 537; Best Local Similarity 47.2%; Pred. No. 26; Matches 152; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: Clone ID: LIB3828-015-Q1-N6-E10 US-10-021-323-7228
                                                                                                                                                                                                                                                                                                                                                   RESULT 8
US-10-021-323-7228
; Sequence 7228, Application US/10021323
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
US-60-255-619-7228
                                                                                                                                                                                                                                                                        ||
AA 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                         357
                                                                                                                                                                                                                                                661
                                      a
                                                                                                                   셤
                                                                                                                                                                                                     a
                                                                                 ò
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                          APPLICANT: Searle Monsanto
APPLICANT: Doshi, Parul D.
APPLICANT: Doshi, Parul D.
APPLICANT: Chen, Jin
APPLICANT: Chen, Jin
APPLICANT: Chen, Jin
APPLICANT: Ma, Xiao-Jun
TITLE OF INVENTION: Nucleic acid molecules and other molecules associated with HS-5
FILE REFERENCE: SO-3145
CURRENT APPLICATION NUMBER: US/09/388,907
CURRENT FILING DATE: 1999-09-02
EARLIER APPLICATION NUMBER: US 60/0009286
EARLIER FILING DATE: 1998/09/04
NUMBER OF SEQ ID NOS: 7558
SEQ ID NO 6627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Fincher, Karen L.
APPLICANT: Fincher, Thomas J.
APPLICANT: Id Rosa, Thomas J.
APPLICANT: Xiao, Jinhua
TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
CURRENT APPLICATION NUMBER: US/09/666,355A
CURRENT FILING DATE: 2000-09-20
PRIOR PAPLICATION NUMBER: US 60/155,005
PRIOR FILING DATE: 1999-09-21
NUMBER OF SEQ ID NOS: 25978
SEQ ID NO 5285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548 AAAIGGCCACTIGAATAAICAAGAAICAAAATATICAAAAIGAAATAAIGAAGCCACTAA 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               488 ATATTGGAGTATTATCGATGGATTTTTTTTTTTTTAAATAACATGCGCCTATAAAAGA 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 TTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCCAATCTCCA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    608 ACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 7.1%; Score 50; DB 26; Length 445; Best Local Similarity 50.4%; Pred. No. 26; Matches 122; Conservative 0; Mismatches 120; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.2%; Score 50.2; DB 17; Length 55.4%; Pred. No. 22;
Live 0; Mismatches 78; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
; OTHER INFORMATION: Clone ID: uC-gsronu33B169f10b1US-09-666-355A-5285
                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Clone ID: LIB33-004-Q1-B1-C6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 5285, Application US/09666355A GENERAL INFORMATION:
                                                 Sequence 6627, Application US/09388907
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 55.43
Matches 97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-666-355A-5285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-388-907-6627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

ö

; Sequence 7228, Application US/60255619

Ŋ

```
1507 ATGTAATTATAAAATATGTAATTATAAACATTTTAAATTATAAAATATGTAATTATAAAACA 1566
                                                                                                                           535 CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATA 594
                TTCCAATTAACACAAATAAAATCAACAAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA
                                                                                                                                                                                                                                                                   1687 TTTTAATTAAAA 1700
                                                                                                                                                                                                                                   595 ATGAAGCCACTAAA 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
US-09-960-352-11234/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local (
                    415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                   g
                                                                                                                                                            ò
                                                                                                                                                                                              g
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                  8
                                                                                       ð
                               APPLICANT: Feng, Paul C.C.
APPLICANT: Fincher, Karen L.
APPLICANT: Ziegler, Todd E.
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21/52274 AA
CURRENT FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 17880
SEQ ID NO 7228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 22, Application US/60258273
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Beasley. Ellen
TITLE OF INVENTION: PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN NUCLEAR
TITLE OF INVENTION: PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN NUCLEAR
TITLE OF INVENTION: HORMONE RECEPTOR PROTEINS, AND USES THEREOF
TITLE OF INVENTION: HORMONE RECEPTOR PROTEINS, AND USES THEREOF
CURRENT APPLICATION NUMBER: US/60/258,273
CURRENT FILING DATE: 2000-12-27
NUMBER OF SEQ ID NOS: 312
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 22
LENGTH: 46657
                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCTTTAATCGCGCTGAGAATAAAA 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAACATTTCTACTAAATTCGAAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 TIAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191 AAAAATAAAAACCAAGGTAAAAAAAAAACGGTTTGGAAAAGAATTTTTTATTATTTTTAA 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196 ATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAA 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA 414
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                TITITITITITITITICOTITITICAATITICAATITICITITICAAACGAIGCAAAGTCAT 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 46657;
                                                                                                                                                                                                                                                                                                                       Score 50; DB 64; Length 537;
Pred. No. 26;
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 49.2; DB 64;
Pred. No. 71;
0; Mismatches 128;
                                                                                                                                                                                                                                 TYPE: DNA

COGANISM: Gossyptum hirsutum

CHER INFORMATION: Clone ID: LIB3828-015-Q1-N6-E10

US-60-255-619-7228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               371 AAAATTTTTTTTTAAGGAAA 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316 TGACTTTTGGTTCTGAGAAGA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.0%;
                                                                                                                                                                                                                                                                                                                         7.18;
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 47.2'
Matches 152; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 49.6
Matches 126; Conservative
GENERAL INFORMATION:
APPLICANT: Delkman, Jill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Human
US-60-258-273-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-60-258-273-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

```
APPLICANT: Byatt, John C.
APPLICANT: Mathalagan, Nagappan
APPLICANT: Tao, Nangappan
APPLICANT: Tao, Nangablan
APPLICANT: Tao, Nangablan
APPLICANT: Warren, Wesley C.
TITLE OF INVENTION: Nucleic Acid and Other Molecules Associated with Lactation and
TITLE OF INVENTION: Nucleic and Fat Deposition
TITLE OF INVENTION: Nucleic and Fat Deposition
CURRENT APPLICATION NUMBER: US/09/480,902
CURRENT FILING DATE: 2000-01-11
EARLIER APPLICATION UNMBER: USSN 60/115,707
EARLIER PILING DATE: 1999-01-12
NUMBER OF SEQ ID NOS: 15112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370 AATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAACACAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCCAATTCGAATTGGAT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               550 ATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAAC 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 ATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAATTCTG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     510 TCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Clone ID: 48-LIB3058-052-Q1-K1-D8 US-09-480-902-11234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 48.6; DB 18;
Pred. No. 45;
0; Mismatches 189;
                                                 ; Sequence 11234, Application US/09480902; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 46.2%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: BOS taurus
RESULT 11
US-09-480-902-11234/c
```

88

```
Nucleic Acid Molecules and Other Molecules Associated wi
         545 AGAAAATGGCCACTTGAATAA - TCAAGAATCAAAATATTCAAAATGAAATAATGAAGCC 602
                                                                                                                                                                                                                                                                                                                                           603 ACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              365 ITCIGAATATTATCITTTCCITACAIGGAATAACIGCAITCIIGGAIAIAITICCAAITAA 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         425 CACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAAT 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           545 AGAAAATGGCCACTTGAATAA--TCAAGAATCAAAATATTCAAAATGAAATAAATGAAGCC 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   603 ACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACAAA 662
                                                                                                                                                                                                                                                                                                                                                                  305 TGAGAATAAAATGACTITIGGITCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAAATCTCCACAAT
                                             TICTGAATATTATCTTTCCTTACATGGAATAACTGCATTCTTGGATATTTCCAATTAA
                                                                                Length 423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
CRGANISM: Zea mays
CTHER INFORMATION: Clone ID: LIB3076-006-Q1-K1-F9
US-09-565-306-68010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 6.9%; Score 48.4; D. Best Local Similarity 47.8%; Pred. No. 49; Matches 172; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/565,306
CURRENT FILING DATE: 2000-05-04
NUMBER OF SEQ ID NOS: 83523
SEQ ID NO 68010
LENGTH: 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 68010, Application US/09565306 GENERAL INFORMATION:
APPLICANT: Andersen, Scott E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Conner, Timothy W. APPLICANT: Lalgudi, Raghunath V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Lalgudi, Raghuna
TITLE OF INVENTION: Nu
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-565-306-68010/c
                                             365
                                                                              ద
                                                                                                                                                   g
                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                           ò
                                             à
                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 44113, Application US/09394745

Sequence 44113, Application US/09394745

Sequence 44113, Application US/09394745

Sequence 44113, Application US/09394745

APPLICANT: Lalgudi, Raghunath V.

TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH TITLE OF INVENTION: US/09/394,745

CURRENT FILING ATE: 1999-09-15

NUMBER OF SEQ ID NOS: 57264

SEQ ID NO 44113

LENGTH 4.13
Sequence 11234, Application US/09960352
GENERAL INFORMATION:
APPLICANT: Warren, Wesley C.
APPLICANT: Pao, Nengeley C.
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagapan
TITLE OF INVENTION: NUCLEIC ACID DEPOSITION
TITLE OF INVENTION: NUCLEIC ACID DEPOSITION
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
SEQ ID NO 11234
                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     310 ATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCCTCCAATCTTCTAATTCTG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 AATAITAICTITICCTIACAIGGAAIAACIGCAIICTIGGAIAIAITCCAAITAACACAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATTCTCCACAATTGGAT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAATGAAGCCACTAAAC 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      305 TGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCAATCTTCTAA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;;
                                                                                                                                                                                                                                                                                                                                                            Length 419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   610 TCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAACACA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.9%; Score 48.4; DB 17; Length 47.8%; Pred. No. 49; ive 0; Mismatches 186; Indels
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                ; TYPE: DNA
ORGANISM: Bos taurus
; OTHER INFORMATION: Clone ID: 48-LIB3058-052-Q1-K1-D8
US-09-960-352-11234
                                                                                                                                                                                                                                                                                                                                                    Score 48.6; DB 36;
Pred. No. 45;
                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Zea mays
CTHER INFORMATION: Clone ID: LIB3076-006-01-K1-F9
US-09-394-745-44113
                                                                                                                                                                                                                                                                                                                                                        6.9%;
                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 46.2<sup>§</sup>
Matches 162; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 47.83
Matches 172; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _ _ _ _ _ _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-394-745-44113/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              430
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

ï

RESULT 15

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                  485 IGGATATIGGAGTATTATCGATGGATTTTCTTCTTTTAATTAAACATGCGCCTATAAA 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     425 CACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAACTCCAATCTCCACAAT 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545 AGAAAATGCCCACTTGAATAA - - TCAAGAATCAAAATATTCAAAATGAAGTAATGAAGCC 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305 TGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCCCAATCTTCTAA 364
                                                                                                                                                                                                                                                                                                                                                                        365 TTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATTCCAATTAA 424
                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 6.9%; Score 48.4; DB 25; Length 423; Best Local Similarity 47.8%; Pred. No. 49; Matches 172; Conservative 0; Mismatches 186; Indels 2
                                           APPLICANT: Kovalic, David K.
APPLICANT: Liu, Jingdong
TITLE OF INVENTION: Annotated Plant Genes
FILE REFERENCE: 38-21(15697)D
CURRENT APPLICATION NUMBER: US/09/654,617
CURRENT FILING DATE: 2000-09-05
NUMBER OF SEQ ID NOS: 463173
LENGTH: 423
US-09-654-617-330054/c
; Sequence 330054, Application US/09654617
; GENERAL INFORMATION:
                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Zea mays
US-09-654-617-330054
                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                          셤
```

Search completed: November 2, 2002, 00:37:01 Job time: 2081.61 secs

Casen ANN THE FORE SILL

```
GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
```

1, 2002, 22:55:48; Search time 271.958 Seconds (without alignments) 9300.473 Million cell updates/sec OM nucleic - nucleic search, using sw model November Run on:

700 1 gaattcggcacgagattttt.....accgcatcctacagaaagc 700 US-09-881-556-3 Title: Perfect score: Sequence:

IDENTITY_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

2893907 seqs, 1806667767 residues Searched:

Total number of hits satisfying chosen parameters:

length: 0 length: 2000000000 Minimum DB seq Maximum DB seq

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

•• Database

Pending_Patents_NA_New:*

1: /cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*

2: /cgn2_6/ptodata/2/pna/USOF_LEW_COMB.seq:*

3: /cgn2_6/ptodata/2/pna/USOF_NEW_COMB.seq:*

4: /cgn2_6/ptodata/2/pna/USOF_NEW_COMB.seq:*

5: /cgn2_6/ptodata/2/pna/USOF_NEW_COMB.seq:*

7: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

7: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

8: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

9: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

10: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

10: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

11: /cgn2_6/ptodata/2/pna/USOB_NEW_COMB.seq:*

12: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

13: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

14: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

15: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

16: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

16: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

15: /cgn2_6/ptodata/2/pna/USIO_NEW_COMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Score Match Length DB ID 48.4 6.9 7040 12 US-10-172-086-13 47.2 6.7 5501 13 US-10-211-613-204 46.2 6.6 639 9 US-09-814-353-6171 46.2 6.6 639 9 US-09-814-353-12449 46.2 6.6 639 9 US-09-814-353-12449 46.6 6.6 539 9 US-09-814-353-12449 56.6 539 9 US-09-814-353-12449 57.2 6.6 539 9 US-09-814-353-12449 57.2 9 US-09-814-353-12449 57.2 9 US-09-814-353-18656 57.3 9 US-09-785-2776A-8158 57.3 10 US-09-785-2776A-8158 57.4 6.5 18283 13 US-10-221-613-326 57.5 18283 13 US-10-221-613-326			ø				
48.4 6.9 7040 12 US-10-172-086-13 47.2 6.7 5501 13 US-10-172-086-13 46.2 6.6 639 9 US-09-814-353-6171 46.2 6.6 639 9 US-09-814-353-6171 46.2 6.6 639 9 US-09-814-353-12449 46.6 6.6 539 9 US-09-814-353-12449 56 6.6 539 9 US-09-814-353-12449 56 6.6 539 9 US-09-814-353-12449 57 6 6.5 539 9 US-09-814-353-1243 57 75 9 US-09-814-353-18656 58 75 9 US-09-814-353-3865 58 77 9 US-09-814-353-3	Result		Ouery		1	;	
6.9 7040 12 US-10-172-086-13 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-12449 6.6 639 9 US-09-814-353A-12449 6.6 539 9 US-09-814-353A-12449 6.6 539 9 US-09-814-353A-12449 6.6 539 9 US-09-814-353A-12133 6.5 752 9 US-09-814-353A-18656 6.5 752 9 US-09-10-1865-333	Q	score	March	Length	. DB	ID	Description
6.7 5501 13 US-10-221-613-204 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-12449 6.6 539 9 US-09-814-353A-12449 6.6 539 9 US-09-814-353A-12449 6.6 539 9 US-09-814-353A-12449 6.7 752 9 US-09-814-353-12133 6.5 752 9 US-09-814-353-18656 6.5 752 9 US-09-814-353A-18656 6.5 762 9 US-09-814-353A-18656 6.7 752 9 US-09-10-10-10-10-10-10-10-10-10-10-10-10-10-	0	48.4	6.9	7040	12	US-10-172-086-13	Sequence 13, Appl
6.6 639 9 US-09-814-353-6171 6.6 639 9 US-09-814-353-1244 6.6 639 9 US-09-814-353-1244 6.6 639 9 US-09-814-353A-1244 6.6 539 9 US-09-814-353-5852 6.6 539 9 US-09-814-353-5852 6.6 539 9 US-09-814-353-12133 6.6 539 9 US-09-814-353-18656 752 9 US-09-814-353A-12133 6.5 752 9 US-09-814-353A-18656 752 9 US-09-814-353A-18656 752 9 US-09-814-353A-18656 752 9 US-09-814-353A-18656 753 9 US-09-814-353A-18656 754 13 US-10-198-846-5980 755 65 327 9 US-09-785-276A-8158 757 9 US-09-785-276A-8158 758 65 18283 13 US-10-221-613-3	ر د	47.2	6.7	5501	13	US-10-221-613-204	Sequence 204, App
6.6 639 9 US-09-814-353-12449 5 6.6 639 9 US-09-814-353A-6171 5 6.6 639 9 US-09-814-353A-6171 5 6.6 639 9 US-09-814-353A-6171 5 6.6 539 9 US-09-814-353-12449 5 6.6 539 9 US-09-814-353A-5852 5 6.6 539 9 US-09-814-353A-5852 5 6.5 752 9 US-09-814-353A-18656 5 752 9 US-09-918-955-15842 5 6.5 18283 13 US-10-221-613-326 6.4 6394 13 US-10-221-613-329	c o	46.2	9.9	639	6	US-09-814-353-6171	Sequence 6171, Ap
6.6 639 9 US-09-814-353A-6171 S 6.6 639 9 US-09-814-353A-12449 S 6.6 539 9 US-09-814-353A-12449 S 6.6 539 9 US-09-814-353-12133 S 6.6 539 9 US-09-814-353-12133 S 6.6 5752 9 US-09-814-353A-12133 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 1327 9 US-09-785-276A-8158 S 6.5 18283 13 US-10-221-613-326 S 6.4 6394 13 US-10-221-613-328	Ω	46.2	9.9	639	6	US-09-814-353-12449	Sequence 12449, A
6.6 639 9 US-09-814-353A-12449 S 6.6 539 9 US-09-814-353-5852 S 6.6 539 9 US-09-814-353-12133 S 6.6 539 9 US-09-814-353-12133 S 6.6 539 9 US-09-814-353A-12133 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 4 6.5 874 13 US-10-198-846-5980 S 6.5 327 9 US-09-785-276A-8158 S 6.5 1877 9 US-09-785-276A-8158 S 6.5 18283 13 US-10-221-613-3 S 6.5 18283 13 US-10-221-613-3 S 6.5 18283 13 US-10-221-613-3 S 6.5 18283 13 US-10-221-613-3 S	c 5	46.2	9.9	639	δ	US-09-814-353A-6171	Sequence 6171, Ap
6.6 539 9 US-09-814-353-5852 S 6.6 539 9 US-09-814-353-12133 S 6.6 539 9 US-09-814-353A-5852 S 6.6 539 9 US-09-814-353A-12133 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 5680 13 US-10-21-613-3 6.5 5680 13 US-10-21-613-3 6.5 18283 13 US-10-221-613-3 6.5 18283 13 US-10-221-613-326 6.4 6394 13 US-10-221-613-326	9	46.2	9.9	639	6	US-09-814-353A-12449	Sequence 12449, A
6.6 539 9 US-09-814-353-12133 S 6.6 539 9 US-09-814-353A-5852 S 6.5 752 9 US-09-814-353-18656 S 6.5 752 9 US-09-814-353-18656 S 6.5 752 9 US-09-814-353-18656 S 6.5 752 9 US-09-814-353-18656 S 752 9 US-09-814-353-18656 S 752 9 US-09-814-353-18656 S 753 9 US-09-785-276A-8158 S 754 9 US-09-785-276A-8158 S 755 18283 13 US-10-221-613-326 S 757 9 US-09-785-276A-8158 S 758 6.4 6394 13 US-10-221-613-326	٥ ؍	46	9.9	539	6	US-09-814-353-5852	Sequence 5852, Ap
6.6 539 9 US-09-814-353A-5852 S 6.6 539 9 US-09-814-353A-12133 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 6.5 752 9 US-09-814-353A-18656 S 14 6.5 560 13 US-10-198-465-5980 S 6.5 327 9 US-09-785-276A-8158 S 6.5 18283 13 US-10-221-613-326 S 6.4 6394 13 US-10-221-613-326	в С	46	9.9	539	6	US-09-814-353-12133	
6.6 539 9 US-09-814-353A-12133 S 6.5 752 9 US-09-814-353-18656 S 5 6.5 752 9 US-09-814-353A-18656 S 6.5 874 13 US-10-198-846-5980 6.5 5680 13 US-10-121-613-3 6.5 327 9 US-09-785-276A-8158 S 6.5 18283 13 US-10-221-613-3 6.5 18283 13 US-10-221-613-326 6.4 6394 13 US-10-221-613-326	6 0	46	9.9	539	6	US-09-814-353A-5852	Sequence 5852, Ap
5 6.5 752 9 US-09-814-353-18656 S 6.5 752 9 US-09-814-353A-18656 S 1 6.5 874 13 US-10-128-46-5980 1 6.5 5680 13 US-10-21-613-3 2 6.5 327 9 US-09-785-276A-8158 S 6.5 18283 13 US-10-221-613-326 6.4 6394 13 US-10-221-613-326	c 10	46	9.9	539	σ	US-09-814-353A-12133	Sequence 12133, A
5 6.5 752 9 US-09-814-353A-18656 S 1 6.5 874 13 US-10-198-846-5980 2 6.5 5680 13 US-10-221-613-3 2 6.5 327 9 US-09-785-276A-8158 S 2 6.5 477 9 US-09-918-995-15842 S 5 6.4 6394 13 US-10-221-613-326	c 11	45.6	6.5	752	σ	US-09-814-353-18656	Sequence 18656, A
1 6.5 874 13 US-110-198-846-5980 1 6.5 5680 13 US-10-211-613-3 2 6.5 327 9 US-09-785-276A-8158 S 2 6.5 477 9 US-09-918-995-15842 S 2 6.5 18283 13 US-10-221-613-326 5 6.4 6394 13 US-10-221-613-239	c 12	45.6	6.5	752	σ	US-09-814-353A-18656	Sequence 18656, A
1 6.5 5680 13 US-10-221-613-3 2 6.5 327 9 US-09-785-276A-8158 S 2 6.5 477 9 US-09-918-995-15842 S 2 6.5 18283 13 US-10-221-613-326 6.4 6394 13 US-10-221-613-239	13	45.4	6.5	874	13	US-10-198-846-5980	Sequence 5980, Ap
2 6.5 327 9 US-09-785-276A-8158 S 2 6.5 477 9 US-09-918-995-15842 S 2 6.5 18283 13 US-10-221-613-326 5 6.4 6394 13 US-10-221-613-239	14	45.4	6.5	5680	13	US-10-221-613-3	Sequence 3, Appli
2 6.5 477 9 US-09-018-995-15842 5 6.5 18281 13 US-10-21-613-325 5 6.4 6394 13 US-10-221-613-239	15	45.2	6.5	327	σ	US-09-785-276A-8158	Sequence 8158, Ap
13 US-10-221-613-326 13 US-10-221-613-239	16	45.2	6.5	477	6	US-09-918-995-15842	Sequence 15842, A
13 US-10-221-613-239 Sequence	c 17	45.2	6.5	18283	13	US-10-221-613-326	Sequence 326, App
	c 18	45	6.4	6394	13	US-10-221-613-239	Sequence 239, App

Sequence 5831, Ap Sequence 12112, A Sequence 12112, A Sequence 12112, A Sequence 8283, Ap	Sequence 5993, Ap Sequence 12272, A Sequence 5993, Ap Sequence 12272, A	Sequence 7, Appli Sequence 3, Appli Sequence 1, Appli Sequence 17543, A	Sequence 17944, A Sequence 123, App Sequence 1510, Ap Sequence 1598, Ap Sequence 11962, A	Sequence 950, App Sequence 6125, Ap Sequence 33, Appl Sequence 55615, A Sequence 113, App Sequence 413, App Sequence 64, App
US-09-814-353-5831 US-09-814-353-12112 US-09-814-353A-5831 US-09-814-353A-12112 US-09-785-276A-8283	US-09-814-353-5993 US-09-814-353-12272 US-09-814-353A-5993 US-09-814-353A-12272		US-U9-11-543 US-U9-10-221-613-323 US-U9-789-189-1510 US-U9-785-276A-7598 US-09-918-995-11962 PCT-USO2-09188-914	
00000	0 0 0 0	2175	2 E 0 0 0 0 0	2 113 13 13 13 13
500 500 500 513	631 631 631 631	1799 2017 5314 392	392 7131 359 478 491 14809	14809 14809 53332 396 512 9760 5241 6298
00000 44444	0000 4444		, , , , , , , , , , , , , , , , , , ,	0000000
888889	9999	4444	43 43 43 43 43 6 43 7 7	444 443 43.2 43.2 43.2 43.2 43.2 43.2 43
4444	4444	444	य य य य ल ल ल ल	444 4444
19 20 22 23	24 25 27	3000	3 3 3 4 3 5 7 4 4 3 5 7 4 4 5 7 5 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	8 6 0 1 1 2 1 4 4 4 4 4 4 8 8 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
υ	0000	0000	00 0 0	0000 00

ALIGNMENTS

423 AACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATCTCCACA 482 543 AAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAGTGAAGCC 602 APPLICANT: Epigenomics AG TITLE OF INVENTION: Method and nucleic acids for the differentiation TITLE OF INVENTION: of prostate tumors FILE REFERENCE: CURRENT APPLICATION NUMBER: US/10/172,086 CURRENT FILING DETE: 2002-06-13 NUMBER OF SEQ ID NOS: 116 ; OTHER INFORMATION: chemically treated genomic DNA (Homo saplens) US-10-172-086-13 .; Length 7040; Indels Query Match 6.9%; Score 48.4; DB 12; Best Local Similarity 52.9%; Pred. No. 2; Matches 127; Conservative 0; Mismatches 111; ; Sequence 13, Application US/10172086 ; GENERAL INFORMATION: ORGANISM: Artificial Sequence RESULT 1 US-10-172-086-13/c SEQ ID NO 13 LENGTH: 7040 TYPE: DNA FEATURE: 1650 g g à ò g à ð

ä

RESULT 2

```
295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                          GREEAL INCHARILOW:
GREEAL INCHARILOW:
GAPLICANT: DIEKENDROCK, Christian
APPLICANT: BIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Cell Cycle
FILE REPERENCE: 5013.1004
CURRENT APPLICATION NUMBER: US/10/221,613
CURRENT FILING DATE: 2002-09-13
FRIOR APPLICATION NUMBER: PCT/EP01/02945
DE 1001347.00
DE 1001347.8
DE 1001347.8
DE 10043529.7
DE 10043529.7
DE 1004365.1
SO00-04-07
COO-04-06
COO-09-01
NUMBER OF SEQ ID NOS: 428
SEQ ID NO 204
CENTER : 5501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2753 ACAACCTAATATAAAACTAAAACTCAAAAAAAAAATCAAAACTTAAACTATAAATTTA 2694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334 AAGACTTAGCGACAACTCTCCAATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394 ATAACTGCATTCTTGGATATATTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    514 CITCTICITIAATTAAACAIGCGCCIATAAAAGAAAAIGGCCACTIGAATAAICAAAAT 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAAATATTCAAAATGAAATAATGAAGCCACTAAAACTCAACAAATCCAGAATCAGGTGGG 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Thompson, Pamela
APPLICANT: Thompson, Pamela
APPLICANT: Lillie, James
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND
FILE REPERBENCE: MRI-006B
CURRENT APPLICATION NUMBER: US/09/814,353
CURRENT FILLIG DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               454 AAAGTICCGGAGAAAACTCCAATCTCCACAATTGGATATTGGAGTATTATCGATGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; FEATURE: ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) 01-10-221-613-204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 6.7%; Score 47.2; DB 13; Length 5501; Best Local Similarity 46.6%; Pred. No. 3.3; Matches 151; Conservative 0; Mismatches 173; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6171, Application US/09814353
GENERAL INFORMATION:
APPLICANT: Lee, John
US-10-221-613-204/c
; Sequence 204, Application US/10221613
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2633 AATTAAAAACTAAAATATAAAAC 2610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATAACTTAACTCAGAACCAAAAC 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-814-353-6171/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
```

```
235 CTTGTGTTTTCTATACAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAAACCCT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         474 NINGNGGGGGNNTTAANAAACCNCCTCNTTNATAANAAAAAANNNGGGNNTTTTTTT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           354 ITITICCCAAAAAAAAAATITITNINGGNNNCCAAAAAANTTTTTNCCCTTTNNAAAA 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          175 GAGGTGATATTTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           414 TITITITITITITATAAAAAAAAAAACCCCCCCCCCCCGGGTTINAAANNAAINTTT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415 TICCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535 CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATA 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 ATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAA 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 27, 127, 128, 129, 130, 159, 172, 181, 182, 187, 188, 190, LOCATION: 272, 219, 228, 229, 230, 237, 233, 234, 239, 240, 253, LOCATION: 272, 276, 299, 300, 307, 314, 323, 324, 325, 328, 330, 359, LOCATION: 363, 364, 368, 383, 388, 423, 424, 428, 429, 430, 439 OTHER INFORMATION: n = A,T,C or G
LOCATION: 444, 447, 452, 458, 463, 464, 470, 472, 474, 481, 482, 484, LOCATION: 444, 447, 452, 458, 463, 508, 512, 516, 530, 533, 535, 536, 544, 545, 548, LOCATION: 553, 559, 564, 565, 567, 570, 571, 583, 587, 590, 597, 599, OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114 АВАВАВАВАВАВАВАВАВАВАВАВАВАВАВАВАВАВСССВАВАВАВАВАВАВАВАВАВА 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches 298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 6.6%; Score 46.2; DB 9;
Best Local Similarity 38.4%; Pred. No. 4.1;
Matches 186; Conservative 0; Mismatches 298:
                                                      PRIOR APPLICATION NUMBER: US 60/207,124
PRIOR FILING DATE: 2000-05-25
PRIOR APPLICATION NUMBER: US 60/211,940
PRIOR PLILNG DATE: 2000-06-15
PRIOR FILING DATE: 2000-07-07
PRIOR PELICATION NUMBER: US 60/216,820
PRIOR FILING DATE: 2000-07-25
PRIOR FILING DATE: 2000-07-25
PRIOR PELICATION NUMBER: US 60/250,661
PRIOR APPLICATION NUMBER: US 60/257,672
PRIOR PILING DATE: 2000-12-21
PRIOR FILING DATE: 2000-12-21
PRIOR FILING DATE: 2000-12-21
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
US 60/191,031
                           FILING DATE: 2000-03-21 APPLICATION NUMBER: US 60/207,124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-814-353-6171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            655 AACA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAA 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 6171
LENGTH: 639
```

```
APPLICANT: Lee, John
APPLICANT: Lee, John
APPLICANT: Lee, John
APPLICANT: Thompson, Pamela
APPLICANT: Libra James
APPLICANT: Libra James
APPLICANT: Libra James
APPLICANT: Libra James
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MRI-066
CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR FILING DATE: 2000-03-21
PRIOR FILING DATE: 2000-03-21
PRIOR FILING DATE: 2000-05-25
PRIOR PLICATION NUMBER: US 60/211,940
PRIOR FILING DATE: 2000-06-15
PRIOR PLICATION NUMBER: US 60/216,820
PRIOR FILING DATE: 2000-06-15
PRIOR PLICATION NUMBER: US 60/220,661
PRIOR FILING DATE: 2000-07-25
PRIOR PLICATION NUMBER: US 60/220,661
PRIOR FILING DATE: 2000-07-25
PRIOR PLICATION NUMBER: US 60/257,672
PRIOR PLICATION NUMBER: US 60/257,672
PRIOR PRIOR PLICATION NUMBER: US 60/257,672
SOFTWARE: FSSLEED for Windows Version 4.0
SEC ID NO 6171
LENGTH: 639
                                  CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATA 594
                                                                                                                                              ATGAAGCCACTAAACTCAACAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAA 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         175 GAGGTGATATTTTATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235 CTTGTGTTTTCTATACAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCT 294
                                                                                                                                                                                 NAME/KEY: misc_feature
LOCATION: 37, 127, 128, 129, 130, 159, 172, 181, 182, 187, 188, 190,
LOCATION: 217, 218, 219, 228, 229, 230, 232, 233, 234, 239, 240, 253,
LOCATION: 272, 276, 299, 300, 307, 314, 323, 324, 325, 328, 330, 359,
COCATION: 363, 364, 368, 383, 388, 423, 424, 428, 429, 430, 439
COTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 9; Length 639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 38.4%; Score 46.2; DB 9; Length 6 Similarity 38.4%; Pred. No. 4.1; 36.5 Conservative 0; Mismatches 298; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-814-353A-6171/c
; Sequence 6171, Application US/09814353A
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                    655 AACA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Simil
Matches 186; C
                                                                                                                                                                                                                                                         54 AAAA 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                       535
                                                                                                                                              595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                  g
                                                                                                                                                                             셤
                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                셤
                                                                       à
                                                                                                                                         õ
                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          474 NTNGNGGGGGNNTTAANAAACCNCCTCNTTNATAANAAAAAAAANNNGGGNNTTTTTTT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414 TITITITITITITATAAAAAAAAACCCCCCCCCCGGGTTNAAANNAATNTTT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175 GAGGTGATATTTTTTTCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534 GNGGNGTTTTTTTTTTTGNTTTNGGANAAAAAAAAGGGGNTTTATAAANNANNTAATTT 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235 CTTGTGTTTTCTATACAAAAACATGTTTTGAAAAGAATGAAGCACATTGTCTTAAACCCT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    354 TTTTTCCCAAAAAAAAAATTTTTNTNGGNNNCCAAAAAANTTTTTTCCCTTTNNAAAA 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCCAATTAACACAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 9; Length 639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 6.6%; Score 46.2; DB 9; Length 6 Best Local Similarity 38.4%; Pred. No. 4.1; Matches 186; Conservative 0; Mismatches 298; Indels
                                                                 Sequence 12449, Application US/09814353 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              294
```

8

g

ò

셤

õ g õ

õ

ö

us-09-881-556-3.rnpn

```
Sequence 12449, Application US/09814353A

GENERAL INFORMATION:
APPLICANT: Lee, John
APPLICANT: Lille, James
ITILE OF INVENTION: NORL GENES, COMPOSITIONS, KITS, AND METHODS FOR
ITILE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
ITILE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REPERENCE: MRI-006B
CURRENT APPLICATION NUMBER: US/09/814,353A
CURRENT PILING DATE: 2001-03-21
FRIOR FILING DATE: 2000-03-21
FRIOR FILING DATE: 2000-03-24
FRIOR FILING DATE: 2000-05-25
FRIOR PELICATION NUMBER: US 60/211,940
FRIOR FILING DATE: 2000-06-25
FRIOR FILING DATE: 2000-06-15
FRIOR FILING DATE: 2000-07-25
FRIOR APPLICATION NUMBER: US 60/257,672
FRIOR FILING DATE: 2000-07-25
FRIOR FILING DATE: 2000-07-27
355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         295 ITAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCC 354
                                                                                                                                                                                                                                                                                                                                 354 ITITICCCAAAAAAAAATITITININGGNNNCCAAAAAANTITITINCCCTTINNAAA 295
                                                                                                                                                                                                                                                                                                                                                                                                           415 TTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                535 CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATA 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 ATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAA 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
LOCATION: 37, 127, 128, 129, 130, 159, 172, 181, 182, 187, 188, 190,
LOCATION: 217, 218, 219, 228, 229, 230, 232, 233, 234, 239, 240, 253,
LOCATION: 272, 276, 299, 300, 307, 314, 323, 324, 325, 328, 330, 359,
LOCATION: 363, 364, 368, 383, 388, 423, 424, 428, 429, 430, 439
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY: misc_feature
LOCATION: 444, 447, 452, 458, 463, 464, 470, 472, 474, 481, 482, 484,
                                                                                                                                                                                  114 рарарарарарарарарарарарарарарарарара СССВарарарарарарарара
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-814-353A-12449/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            655 AACA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAA 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 54
                                  g
                                                                                                        ò
                                                                                                                                                                              g
                                                                                                                                                                                                                                                           å
                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                           å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

```
GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Led, John
APPLICANT: Lillie, James
TITLE OF INVENTION:

THENCAPELICATION AND METHOR OF OVARIAN CANCER

TITLE OF INVENTION: THERAPY OF OVARIAN CANCER

THEN THE PAPLICATION NUMBER: US 60/191,031

PRIOR FILLING DATE: 2000-03-21

PRIOR PALLOATION NUMBER: US 60/211,940

PRIOR PALLOATION NUMBER: US 60/211,940

PRIOR FILING DATE: 2000-05-25

PRIOR FILING DATE: 2000-05-25

PRIOR FILING DATE: 2000-05-26

PRIOR PLICATION NUMBER: US 60/216,820

PRIOR PLICATION NUMBER: US 60/220,661

PRIOR PLICATION NUMBER: US 60/257,672

PRIOR FILING DATE: 2000-07-25

PRIOR FILING DATE: 2000-07-27

PRIOR FILING DATE: 2000-07-25

PRIOR FILING DATE: 2000-07-27
                                                                                                                                                                                                                                               175 GAGGTGATATITITATCCTTGATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCG 234
                                                                                                                                                                                                                                                                                                534 GNGGNGTTTTTTTTTTTTTTNGGANAAAAAAAAAGGGGNTTTATAAANNANNTAATTT 475
                                                                                                                                                                                                                                                                                                                                           235 CITGIGITITICIATACAAAAACAIGTITIGAAAAGAAIGAAGCACAITGICITAAAACCI 294
                                                                                                                                                                                                                                                                                                                                                                                                                                            295 TTAATCGCGCTGAGAATAAAATGACTTTTGGTTCTGAGAAAGACTTAGCGACAACTCTCC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LOCATION: 485, 494, 508, 512, 516, 530, 533, 535, 536, 544, 545, 548, ; LOCATION: 553, 559, 564, 565, 567, 570, 571, 583, 587, 590, 597, 599, ; LOCATION: 608, 610, 613, 614, 619, 623, 624, 634
; COTHER INFORMATION: n = A,T,C or G
US-09-814-353A-12449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415 TTCCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAA
                                                                                                                                                                                                                                                                                                                                                                                            474 NINGNGGGGGNNTIAANAAACCNCCICNTINAIAANAAAAAANNNGGGNNTITITII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355 AATCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354 TITITCCCAAAAAAAAAAATITITNTNGGNNNCCAAAAAANTTTTTTTCCCTTTNNAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          535 CGCCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 ATGAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAA
                                                                                                                                                                                                    ;
0
                                                                                                                                              Length 639,
                                                                                                                                                                                                  Indels
                                                                                                                                                                                                  0; Mismatches 298;
                                                                                                                                         Query Match
6.6%; Score 46.2; DB 9;
Best Local Similarity 38.4%; Pred. No. 4.1;
Matches 186; Conservative 0; Mismatches 298:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
US-09-814-353-5852/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        655 AACA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAA 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54
                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                  ö
TCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              417 CCAATTAACACAAATAAAATCAACAAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 ANAATNTNNTGAAAAAAAAAAAAAATTNTTTTTTTTTCATCAAAANNTTATCCCNCCN 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597 GAAGCCACTAAACTCAACAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 TITITITITITGGGNANTITITITITITNCNTNCAAAANAAININANAITINANAATAIIN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 NAAAAATTINTNINGGGNNNTAGTCNNTTTINACNTTTTTGCNCCNTTTINATATTTTT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Lee, John
APPLICANT: Lillé, James
APPLICANT: Lillé, James
APPLICANT: Lillé, James
APPLICANT: Lillé, James
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
CURRENT APPLICATION NUMBER: US 60/191,031
PRIOR APPLICATION NUMBER: US 60/207,124
PRIOR PELING DATE: 2000-03-21
PRIOR PELING DATE: 2000-06-15
PRIOR PELING DATE: 2000-06-15
PRIOR PELING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 60/216,820
PRIOR APPLICATION NUMBER: US 60/216,820
PRIOR APPLICATION NUMBER: US 60/220,661
PRIOR FILING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 60/220,661
PRIOR FILING DATE: 2000-07-25
PRIOR APPLICATION NUMBER: US 60/257,672
                                                                                                                                                                                                                                                                                                                                                                           Query Match 6.6%; Score 46; DB 9; Length 539; Best Local Similarity 41.7%; Pred. No. 4.3; Matches 130; Conservative 0; Mismatches 182; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657 CACAAAGCCTCA 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAAAAAACCCA 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-814-353-12133/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
APPLICANT: Let, John
APPLICANT: Let, John
APPLICANT: Thompson, Pamela
APPLICANT: Lille, James
APPLICANT: Lille, James
APPLICANT: Lille, James
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MRI-066B
CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR FILING DATE: 2000-03-21
PRIOR FILING DATE: 2000-05-25
PRIOR APPLICATION NUMBER: US 60/211,940
PRIOR FILING DATE: 2000-06-25
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-07-07
PRIOR FILING DATE: 2000-07-07
PRIOR FILING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 60/216,820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 TTTTTTTTTTNGGGNANTTTTTTTTTNCNTNCAAAANAATNTNANATTTNANAAATATTN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          417 CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 NAAAAATINININGGGNNNIAGICNNTITINACNITITIGCOCCNTITINATATITIT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         597 GAAGCCACTAAACTCAAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                357 TCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATATT 416
                                                                                                                                                                                                        Length 539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 6.6%; Score 46; DB 9; Length 539 Best Local Similarity 41.7%; Pred. No. 4.3; Matches 130; Conservative 0; Mismatches 182; Indels
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-814-353A-5852/c
; Sequence 5852, Application US/09814353A
; GENERAL INFORMATION:
                                                                                                                                                           ORGANISM: Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 AAAAAAAACCCA 50
                                                                                SEQ ID NO 12133
LENGTH: 539
```

```
엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         357 ICTICIAATICIGAATATIATCTTTCCTTACATGGAATAACTGCATTCTTGGATATAT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 TITITITITINGGNANTITITITINNCNINCAAAANAAININANAITINANAAATATIN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              417 CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 ANAATHINNTGAAAAAAAAAAAAAATHNTTTTTTTTTTCATCAAAANNTTATCCCNCCN 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 NAAAAAATTNINTNIGGONNNTAGTCNNTTTTNACNTTTTTTGCNCCNTTTTNATATTTT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            537 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       597 GAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 12133, Application US/09814353A

GENERAL INFORMATION:
APPLICANT: Let. John
APPLICANT: Thompson, Pamela
APPLICANT: Thompson, Pamela
APPLICANT: Lillie, James
ITILE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
ITILE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND
ITILE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MRI-006B
CURRENT FILING DATE: 2000-03-21
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR PPLICATION NUMBER: US 60/207,124
PRIOR PPLICATION NUMBER: US 60/207,124
PRIOR PPLICATION NUMBER: US 60/211,940
PRIOR PLILNG DATE: 2000-05-25
PRIOR APPLICATION NUMBER: US 60/211,940
PRIOR PLILNG DATE: 2000-05-15
PRIOR APPLICATION NUMBER: US 60/211,940
PRIOR APPLICATION NUMBER: US 60/211,940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 6.6%; Score 46; DB 9; Length 539; Best Local Similarity 41.7%; Pred. No. 4.3; Matches 130; Conservative 0; Mismatches 182; Indels
PRIOR FILING DATE: 2000-07-25
PRIOR APPLICATION NUMBER: US 60/257,672
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5852
LENGTH: 539
                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACAAAGCCTCA 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 AAAAAAACCCA 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-814-353A-12133/c
                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
357 ICTICIAATICIGAATATTATCTTTTCCTTACAIGGAATAACIGCATTCTTGGATATTT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361 TTTTTTTTTTNGGGNANTTTTTTTNNCNTNCAAANAATNTNANATTTNANAAATATN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                417 CCAATTAACACAAATTAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 NAAAAATTNTNTNGGGNNNTAGTCNNTTTTNACNTTTTTGCNCCNTTTTNATATTTTT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           537 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       597 GAAGCCACTAAACTCAACAAATCCAGAATCAGGTGGGAATAACTTAACTCAGAACCAAAA 656
                                                                                                                                                                                                                                                                                                                                                                                                     | MAME/KEY: misc_feature | NAME/KEY: misc_feature | NAME/KEY: misc_feature | NAME/KEY: misc_feature | LOCATION: 74, 82, 152, 171, 177, 190, 195, 198, 207, 210, 215, 216, 200CATION: 222, 223, 224, 236, 330, 332, 310, 312, 317, 319, 311, 325, 331, 200CATION: 293, 294, 296, 300, 302, 310, 312, 317, 319, 319, 325, 331, 200CATION: 333, 335, 336, 346, 346, 348, 352, 369, 373, 375, 383, 388 | MAME/KEY: misc_feature | A.T.C or G | COCATION: 393, 394, 403, 404, 409, 423, 425, 428, 443, 446, 447, 449, 100CATION: 391, 395, 496, 504, 513, 515, 518, 525, 526 | UCCATION: 491, 495, 496, 504, 513, 515, 518, 525, 526 | US-09-814-353A-12133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 18656, Application US/09814353
GENERAL INFORMATION:
APPLICANT: Lee, John
APPLICANT: Thomson, Pamela
APPLICANT: Lillie, James
TITLE OF INVENTION: DENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MRI-006B
CURRENT APPLICATION NUMBER: US/09/814,353
CURRENT PILING DATE: 2000-03-21
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR APPLICATION NUMBER: US 60/207,124
PRIOR APPLICATION NUMBER: US 60/207,124
PRIOR PILING DATE: 2000-03-25
PRIOR PILING DATE: 2000-03-25
PRIOR APPLICATION NUMBER: US 60/207,124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 6.6%; Score 46; DB 9; Length 539; Best Local Similarity 41.7%; Pred. No. 4.3; Matches 130; Conservative 0; Mismatches 182; Indels
PRIOR FILING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 60/220,661
PRIOR FILING DATE: 2000-07-25
PRIOR PRIOR APPLICATION NUMBER: US 60/257,672
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 12133
                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657 CACAAAGCCTCA 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 AAAAAAACCCA 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-814-353-18656/c
```

::

```
APPLICANT: LILIE, James
APPLICANT: LILIE, James
APPLICANT: Wongyao
TITLE OF INVENTION: POR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
CURRENT FILLING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR APPLICATION NUMBER: 60/306,220
NUMBER OF SEO ID NOS: 14084
SOFTWARE: FASTSEO for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                  417 CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        537 CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAATATTCAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                        357 TCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATTT 416
                                                                                                                                                                                                                                                                                                                    LOCATION: 2, 3, 172, 188, 194, 197, 200, 201, 207, 208, 217, 218, 219, LOCATION: 221, 224, 226, 228, 230, 231, 239, 241, 242, 243, 244, 247, LOCATION: 248, 249, 258, 261, 270, 271, 272, 274, 275, 276, 280, 281, 282, 283, 287, 288, 289, 289, 291, 292, 294, 295, 296 OTHER INFORMATION: n - A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          349,
400,
455,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    547, 552, 563, 576, 582, 585,
625, 631, 636, 638, 644, 654,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ñ
                                                                                                                                                                                                  Length 752;
                                                                                                                                                                                              Query Match 6.5%; Score 45.6; DB 9; Length 7
Best Local Similarity 50.7%; Pred. No. 5.5;
Matches 136; Conservative 0; Mismatches 129; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            327,
378,
436,
489,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            324,
376,
435,
482,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541,
624,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            314,
375,
434,
475,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          597 GAAGCCACTAAACTCAACAAATCCAGAA 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    146 AAAAAAAAAAAAAAAAAAAAAAAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: misc_feature
LOCATION: 299, 300, 302, 311, 312, 31
LOCATION: 354, 359, 363, 370, 371, 37
LOCATION: 403, 404, 406, 412, 426, 43
LOCATION: 456, 458, 459, 463, 472, 47
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 5980, Application US/10198846; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    532, 536,
607, 622,
                                                                              | NAME/KEY: misc_feature
| LCCATION: 25, 114
| CTHEN INFORMATION: n = A,T,C or G
| US-09-814-353A-18656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: mlsc_feature
LOCATION: 498, 508, 530,
LOCATION: 594, 602, 605,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo saptens
              TYPE: DNA
ORGANISM: Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-198-846-5980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 5980
LENGTH: 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-814-353A-18656/C

Sequence 18656, Application US/09814353A

Sequence 18656, Application US/09814353A

GENERAL INFORMATION:
APPLICANT: Loe, John
APPLICANT: Lillie, James
ITILE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
ITILE OF INVENTION: THERAPY OF OVARIAN CANCER
ITILE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MI1-006B

CURRENT APPLICATION NUMBER: US/09/814,353A

CURRENT FILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR PELLING DATE: 2000-05-35

PRIOR PELLING DATE: 2000-05-35

PRIOR PELLING DATE: 2000-06-15

PRIOR PELLING DATE: 2000-06-15

PRIOR PELLING DATE: 2000-07-07

PRIOR APPLICATION NUMBER: US 60/216,820

PRIOR PELLING DATE: 2000-07-07

PRIOR APPLICATION NUMBER: US 60/220,661

PRIOR PELLING DATE: 2000-07-05

PRIOR PILING DATE: 2000-07-05

PRIOR PELLING DATE: 2000-01-21

NUMBER OF SEQ ID NOS: 22037

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 18656

LENGTH: 752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTATAAAAGAAAATGGCCACTTGAATAATCAAGAATCAAAAATATTCAAAAATGAAATAAT 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                417 CCAATTAACACAAATAAAATCAACAAAATTTCTCTTGAAAGTTCCGGAGAAACTCAATC 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       357 TCTTCTAATTCTGAATATTATCTTTTCCTTACATGGAATAACTGCATTCTTGGATATTT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.5%; Score 45.6; DB 9; Length 752;
50.7%; Pred. No. 5.5;
Live 0; Mismatches 129; Indels
PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: US 60/216,820
PRIOR FILING DATE: 2000-07-07
PRIOR FILING DATE: 2000-07-25
PRIOR FILING DATE: 2000-07-25
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
SOFTWARE: FASTSEQ for Windows Version 4.0
SEC ID NO 18656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146 AAAAAAAAAAAAAAAAAAAAAAAAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          597 GAAGCCACTAAACTCAACAAATCCAGAA 624
                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc_feature

LOCATION: 25, 114

: OTHER INFORMATION: n = A,T,C or G

US-09-814-353-18656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 50.7
Matches 136; Conservative
                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

ω

```
4506 TITATATATTGGGTTTGGRATTTTAAGTAAATATTTTGGAGAATAGGGGTTAGGGTTT 4565
                                                                                                                                                    137 TAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTGA 196
                                                ATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTAATTTCGAAAT
                                                                                     TAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 8158, Application US/09785276A GENERAL INFORMATION:
APPLICANT: Schlegel. Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 208, 212, 220, 223, 226, LOCATION: 246, 250, 251, 254, 261, OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FEATURE:
| NAME/KEY: misc_feature
| LOCATION: 296, 304
| OTHER INFORMATION: n = A,T,C or G
| US-09-785-276A-8158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 125, 132, 138, LOCATION: 181, 182, 183, LOCATION: 208, 212, 220, LOCATION: 246, 250, 251,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                               4746 GCGAATT 4752
                                                                                                                                                                                                                                                                                        257 ATGTTTT 263
                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
US-09-785-276A-8158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 8158
                                                11
                                                                                                                                                                                                            197
                                                                                     g
                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                           а
                                                  ð
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/1021613
GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
APPLICANT: DEFENBROCK, Christian
APPLICANT: BERLIN, Kurt
TILE OF INVENTION: Diagnosis of Diseases Associated with Cell Cycle
FILE REFERENCE: 5013.1004
CURRENT FILING DATE: 2002-09-13
FILE REPLICATION NUMBER: US/10/221,613
CURRENT APPLICATION NUMBER: PCT/EPO1/02945
DE 1001347.00
DE 10019058.8
DE 10019058.8
DE 10019173.8
DE 10019173.8
DE 10019173.8
DE 10019058.8
DE 100043826.1
PRIOR FILING DATE: 2001-03-15
2000-04-06
2000-04-06
                                                                                                                                                                                                                                                                                                                           76 TATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAAACATTTCTACTAAATTCGAAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                136 TTAAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      234 AAAAANTINININGGININCCCCCCCCTTTNCCAAAGGGININANNIAAANNINGGGININGING 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196 ATAGGAAACACGCTCTTGAAGCTGTAAGTTATTCAATCGCTTGTGTTTTCTATACAAAA 255
                                                                                                                                                                                                                                                                                                                                                                                                        174 TITITITITITAAAANAAAANGGNTINNTITITINNAAAAAAANNNGNCCNANTNCNNAA 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16 TITITITITITITITOTITIACCIAITICAATIGATICITIGATICAAAGGAIGCAAGGAGGA 75
                                                                                                                                                                                                                                                    Gaps
    707, 724, 742, 744,
784, 786, 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITITITITITICITITACCIATITCAATTAGTTTCTTTGATTCAAACGATGCAAAGTCATT 76
                                                              ; FEATURE:

; NAME/KEY: misc_feature

; LCCATION: 800, 810, 812, 813, 818, 819, 828, 829, 840, 842, 850,

; LCCATION: 869, 873, 874

; OTHER INFORMATION: n = A,T,C or G

US-10-198-846-5980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Homo sapiens)
                                                                                                                                                                                                      Score 45.4; DB 13; Length 874;
Pred. No. 6.1;
0; Mismatches 158; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 13; Length 5680,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.5%; Score 45.4; DB 13; Length: 49.0%; Pred. No. 7.7; Live 0; Mismatches 126; Indels
LOCATION: 657, 661, 667, 681, 682, 684, 689, 704, LOCATION: 751, 753, 758, 773, 774, 781, 782, 783, OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTHER INFORMATION: chemically treated genomic DNA US-10-221-613-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                = = =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256 CATGTTTTGAAAGAATGAAG 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 6.5%;
Best Local Similarity 39.5%;
Matches 103; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 49.03
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-09-01
NUMBER OF SEQ ID NOS: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                = - = =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 3
LENGTH: 5680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-221-613-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
APPLICANT: Endege, Wilson
APPLICANT: Endege, Wilson
APPLICANT: Endege, Wilson
APPLICANT: Endege, Wilson
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
TITLE OF INVENTION: HUMAN PROSTATE CANCER
FILE REFERENCE: MRI-007B
CURRENT APPLICATION NUMBER: US/09/785,276A
CURRENT APPLICATION NUMBER: 60/183,319
PRIOR APPLICATION NUMBER: 60/189,862
PRIOR APPLICATION NUMBER: 60/189,862
PRIOR APPLICATION NUMBER: 60/207,454
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-06-25
PRIOR APPLICATION NUMBER: 60/211,314
PRIOR FILING DATE: 2000-07-18
PRIOR PRICATION NUMBER: 60/219,007
PRIOR PELING DATE: 2000-07-18
PRIOR FILING DATE: 2000-07-18
PRIOR FILING DATE: 2000-17-13
NUMBER OF SEQ ID NOS: 62232
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                   QF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  76 TATTTGTTTTAAATCCAGATGGATCCGGAATTTTGAAAACATTTCTACTAAATTCGAAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16 TITITITITITITITACTATITCAATTAGTITCTTTGATTCAACGATGCAAAGTCAT 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 6.5%; Score 45.2; DB 9; Length 327; Best Local Similarity 41.7%; Pred. No. 5.9; Matches 101; Conservative 0; Mismatches 141; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches 141;
```

```
118 TTTTTTTTTAAAATNTAAAANAATANANATTTNTNTATNNCATTACTNAAANAGAAAAA 177
                                ò
a
```

AAATTTGAGCTTGGCTTGATAAATGGTAGTTGGCTCGGAGGTGATATTTTATCCTTG 195	_	TINNATINTTATATINTTANATTINATATAANCCICTINANNATICINAAA 237
STAGTTG	- =	<i>TTANATT</i>
ATAAAT G	= =	TATATI
GCCTTG/	_	NNATNT
CAGCTT	- -	INANANT
36 TTAAATTI		AANNNNN
136		178

q

Search completed: November 1, 2002, 23:31:39 Job time: 291.458 secs

ò a & a

²⁵⁶ CA 257

¹ 298 TA 299

OHEN MATERIAL SIAL

```
November 1, 2002, 23:16:04; Search time 1838.39 Seconds (without alignments) 7331.704 Million cell updates/sec
                                                                         623
                                                                         1 cctcaaatggtgaacatcaa.....aaaaaaaaaaaaactcgag
                                                                                                                                                                  43959072
GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
                                                                                                        21979536 seqs, 10817449327 residues
                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                        nucleic search, using sw model
                                                                                     IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                length: 0
length: 2000000000
                                                           US-09-881-556-4
623
                                                                                                                                                                                                                                                                              Title:
Perfect score:
Sequence:
                                                                                                                               DB seq J
                                                                                     Scoring table:
                        OM nucleic
                                                                                                                                                                            ••
                                                                                                        Searched:
                                                                                                                                                                           Database
                                                                                                                               Minimum [
Maximum [
                                    Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

no to to	Ceact therein	Sequence 4, Appl1	Sequence 2501, Ap	2501,	8029,		1859,		11512,					Sequence 63699, A				Sequence 29077, A	Sequence 16189, A	Sequence 340673,			Sequence 2817, Ap	291, //	Sequence 291, App	29308			2286,	Sequence 2729, Ap		٧.
SUMMARIES	77	US-09-881-556-4	US-09-739-449-2501	08-60-	-73	-80	5	US-09-803-110-1859	29-87	-60-209	-304-517A-25151	-371-146A-25151	-391	-654-617-6369	US-09-684-016-63699	US-09-985-678-251515	US-60-144-084-5658	US-09-565-306-29077	643-16189	US-09-654-617-340673	016-34067	US-60-145-485-7816	-10-01	-09-881	-10-021-698-	-09-637-086A	-09-637-	-09-739-449-228	-09-803-110-	9-397-761A-27	-09-838-601-27	US-09-739-449-739
g		33	5	31	53	31	58	31	33	29	11	17	17	25	27	36	23	22	23	25	27	23	37	33	37	24	24	53	31	11	32	29
- - - - -		623	787	787	543	543	1250	1250	262	9	458	458	458	458	458	S	S	466	398	411	411	411	1017	1000	1000	413	413	757	757	686	686	664
& Query Watch		100.0	9.3			8.7		8.7				8.5								٠.	8.4	8.4	8.4	8.4	-	•	•	٠	•	8.3		•
0	30016	623	57.8	57.8	54.2	54.2	54.2	54.2	53.2	53.2	53	53	53	53	53	53	53	52.8	52.6	52.6	52.6	52.6	52.6	52.2	52.2	52	52	52	52	Н	51.8	51.6
Result No		п					9 0		80	6		c 11							18	19	20	21	22		c 24	25	26		c 28	53	30	31

/cgn2_6/ptodata/1/pna/US6001_COMB.seq:* /cgn2_6/ptodata/1/pna/US6002_COMB.seq:* /cgn2_6/ptodata/1/pna/US6003_COMB.seq:* /cgn2_6/ptodata/1/pna/US6004_COMB.seq:*

ptodata/1/pna/US099C_COMB.seq: /ptodata/1/pna/US10C_COMB.seq:* /ptodata/1/pna/US101_COMB.seq:* /ptodata/1/pna/US6000_COMB.seq:*

/cgn2_6/ /cgn2_6/

```
AGCTGCCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: unsure
LOCATION: (1)..(787)
OTHER INFORMATION: unsure at all n locations
                                                                                                                                                                                                                                                                                                                                 ORGANISM: Agrobacterium tumefaciens
                                                                                                                      AAAAAAAAAAAAAACTCGAG 623
                                                                                                                                          AAAAAAAAAAAAAAACTCGAG 623
                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 9.3 Best Local Similarity 50.2 Matches 143; Conservative
                                                                                                                                                                       RESULT 2
US-09-739-449-2501/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-803-110-2501/c
                                                                                                                                                                                                                                                                                                                                                                                  US-09-739-449-2501
                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                   541
   421
                    421
                                        481
                                                            481
                                                                                541
                                                                                                                       601
                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                    g
                                        ŏ
                                                         g
                                                                               δ
                                                                                                 g
                                                                                                                       ò
                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                     Sequence 2256, Ap Sequence 2256, Ap Sequence 1938, Ap Sequence 1650, Ap Sequence 7284, Ap Sequence 1929, Ap Sequence 12423, Ap Sequence 1329, Ap Sequence 13423, Ap Sequence 1357, Ap
  739, App
429291,
12145, A
429291,
                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                        Sequence 4, Application US/09881556
GENERAL INFORMATION:
APPLICAMY: Sinonsen, J. Neil
TITLE OF INVENTION: Cryptosporidium Parvum Antigens, Antibodies Thereto and
TITLE OF INVENTION: Cryptosporidium Parvum Antigens, Antibodies Thereto and
TITLE OF INVENTION: Diagnostic and Therapeutic Compositions Thereof
FILE REFERENCE: 9000-0054
CURRENT APPLICATION NUMBER: US/09/881,556
CURRENT FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: 60/212,083
PRIOR FILING DATE: 2000-06-15
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 CCTTCTGTTACTATTCCAGAGACTGGATCAGACTCAGATCACGCGCCCTTGTGACAATTCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTTCTGTTACTATTCCAGAGACTGGATCAGACTCAGATCACGCGCCTTGTGACAATTCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGACTGGATCAGTTCAAATCATCTTCTGCTACTATACCAGAAACAGGATCCAGCTCAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCACACTCTGCTACTTCTCCAGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCAAATGGTGAACATCAAGAATCTGGTTCAGAGCAAGCCCCTATTACCTCACCAGAAA 60
           Sequence
                               Sequence
                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: Description of Artificial Sequence:C. Parvum US-09-881-556-4
                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                               Length 623;
                 US-09-669-817A-12145
US-09-669-817A-12145
US-09-684-016-42991
US-09-803-110-2256
US-10-015-127-1938
US-09-813-402A-1650
US-60-209-830-1650
US-09-666-355A-7284
US-09-666-355A-7284
US-09-666-355A-1929
US-09-666-355A-1323
US-09-666-355A-1323
US-09-666-355A-1323
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 623; DB 33; Best Local Similarity 100.0%; Pred. No. 3.3e-103; Matches 623; Conservative 0; Mismatches 0;
                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
 US-09-881-556-4
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
 00000 000
                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

```
Sequence 2501, Application US/09739449
GENERAL INFORMATION:
APPLICANT: HINKLe, Gregory J.
APPLICANT: HINKLe, Greven C.
TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof CURRENT APPLICATION NUMBER: US/09/739,449
CURRENT FILING DATE: 2000-12-19
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR APPLICATION NUMBER: US 09/514,000
NUMBER OF SEQ ID NOS: 13351
SEQ ID NO 2501
LENGTH: 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 2501, Application US/09803110
; GBNERAL INFORMATION:
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof
; FILE REFERENCE: 38-10(15490)D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                      540
                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                333 AACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAT 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               393 CITCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAG 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA
                                                                                            TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA
                                                                                                                                                                                         GATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513 AAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9.3%; Score 57.8; DB 29; Length 50.2%; Pred. No. 0.82; ive 0; Mismatches 142; Indels
```

m

```
APPLICANT: Hinkle, Gregory J.
APPLICANT: Hinkle, Gregory J.
TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof FILE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof FILE OF INVENTION: NUMBER: US/09/803,110
CURRENT APPLICATION NUMBER: US/09/803,110
RIOR APPLICATION NUMBER: US 09/739,449
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR FILING DATE: 2000-02-33
PRIOR FILING DATE: 1909-12-01
NUMBER OF SEQ ID NOS: 13351
SEQ ID NO 8029
                                                                                                                                                                                                                                                                                     AAGATACTTCGAAAGAAATTAGAAAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                              382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTT 441
                                                                                                                                                                 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG 501
                                                                                                                                                                                                                                               322 CTACATATCCTAACCAAGAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTT 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             502 AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322 CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                             142 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG
                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 8.7%; Score 54.2; DB 31; Best Local Similarity 39.3%; Pred. No. 3.5; Matches 140; Conservative 0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1)..(543)
; OTHER INFORMATION: unsure at all n locations
US-09-803-110-8029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-803-110-8029/c; Sequence 8029, Application US/09803110; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Agrobacterium tumefaciens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: unsure
LOCATION: (1)..(
                                                                                                                                                                                                         142
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                    ò
                                                                                                                                                            g
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                            ð
                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8029, Application US/09739449
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof;
FILE REFERENCE: 38-10(15490)C
CURRENT PAPLICATION NUMBER: US/09/739,449
PRIOR FILING DATE: 2000-12-19
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR FILING DATE: 2000-02-23
NUMBER OF SEQ ID NOS: 13351
SEQ ID NO 8029
LENGTH: 543
                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCCAAATCAACCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAG 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCG 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTC 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          333 AACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAT 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                       Length 787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 8.7%; Score 54.2; DB 29; Length !
Best Local Similarity 39.3%; Pred. No. 3.5;
Matches 140; Conservative 0; Mismatches 216; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 9.3%; Score 57.8; DB 31; Best Local Similarity 50.2%; Pred. No. 0.82; Matches 143; Conservative 0; Mismatches 142;
                                                                                                                                                                                                                                                                                   : NAME/KEY: unsure

: LOCATION: (1)..(787)

: OTHER INFORMATION: unsure at all n locations

US-09-803-110-2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: unsure

: LOCATION: (1)..(543)

: THER INFORMATION: unsure at all n locations

US-09-739-449-8029
              CURRENT FILING DATE: 2001-03-12
PRIOR APPLICATION NUMBER: US 09/739,449
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR FILING DATE: 2000-02-23
PRIOR FILING DATE: 1999-12-01
NUMBER OF SEQ ID NOS: 13351
SEQ ID NO 2501
CURRENT APPLICATION NUMBER: US/09/803,110 CURRENT FILING DATE: 2001-03-12
                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Agrobacterium tumefaciens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Agrobacterium tumefaciens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-739-449-8029/c
                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
PRIOR FILING DATE: 1999-12-01
               NUMBER OF SEQ ID NOS: 13351
SEQ ID NO 1859
LENGTH: 1250
                                                                                                               NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-873-402A-11512
                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
                                                                                                FEATURE
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                           à
                                                                                            TITE OF INVENTIONAL: Stater, Steven C.
TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof
FILE REFERENCE: 38-10(15490)C.
CURRENT APPLICATION NUMBER: US/09/739,449
PRIOR APPLICATION NUMBER: US 09/514,000
PRIOR PILING DATE: 2000-02-23
NUMBER OF SEQ ID NOS: 13351
LENGTH OF SEQ ID NOS: 13351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
TITLE OF INVENTION: Agrobacterium tumefaciens Genome Sequences and Uses Thereof
FILE REFERENCE: 38-10(15490)D
CURRENT APPLICATION NUMBER: US/09/803,110
CURRENT FILING DATE: 2001-03-12
PRIOR FILING DATE: 2000-12-19
PRIOR FILING DATE: 2000-12-19
PRIOR FILING DATE: 2000-02-23
PRIOR FILING DATE: 2000-02-23
PRIOR FILING DATE: 2000-02-23
PRIOR PRICATION NUMBER: US 60/168,139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322 CTACATATCCTAACCAAGAAATGAAATCATAATAATCAGGAAGGTAATTCGAGTTTTA 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTT 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              502 AAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCC 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG
               617
                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1250;
             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 54.2; DB 29;
Pred. No. 3.9;
0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                      . LOCATION: (1)..(1250)
; OTHER INFORMATION: unsure at all n locations US-09-739-449-1859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-803-110-1859/c; Sequence 1859, Application US/09803110; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Agrobacterium tumefaciens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 8.7%;
Best Local Similarity 39.3%;
Matches 140; Conservative
                                                                                           RESULT 6
US-09-739-449-1859/c
                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
Sequence 11512, Application US/09873402A
GENERAL INFORMATION:
APPLICANT: Edgerton, Michael D
APPLICANT: Edgerton, Michael D
APPLICANT: Hardeman, Kristine J
APPLICANT: Waragona, Marguerite J.
TITLE OF INVENTION: Uncleic Acid Molecules And Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(51934)B
CURRENT APPLICATION NUMBER: US/09/873,402A
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: US 60/209,830
PRIOR FILING DATE: 2000-06-06
NUMBER OF SEQ ID NOS: 90966
SEQ ID NO 11512
                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                       262 AGAAGAAGGATTGGACTCAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAG 321
                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                        442 ATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTG 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             303 AGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAG 362
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                             322 CTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          502 AAGATACTTCGAAAGAAATTAGAAACAAATGTAAAGTATCTGCATTGATAAATATGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                       382 ATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                               Length 1250;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     = = = = =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8.5%; Score 53.2; DB 33; Length 562; 47.9%; Pred. No. 5.3; Live 0; Mismatches 164; Indels 0
                                                                                                                                                                                                            Indels
                                                                                                                                                          Score 54.2; DB 31;
Pred. No. 3.9;
0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COTION: (1)..(562)
COTHER INFORMATION: unsure at all n locations
COTHER INFORMATION: Clone ID: LIB3592-004-P1-N6-E5
US-09-873-402A-11512
                                                  ; LUCCATION: (1)..(1250); OTHER INFORMATION: unsure at all n locations US-09-803-110-1859
ORGANISM: Agrobacterium tumefaciens
                                                                                                                                                          Ouery Match 8.7%;
Best Local Similarity 39.3%;
Matches 140; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 47.9
Matches 151; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                           301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8.5%; Score 53; DB 17; Length 458; 47.9%; Pred. No. 5.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 458;
                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 17;
5.6;
                                                                                                                             Annotated Plant Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LUCATION: (1)..(458)
; OTHER INFORMATION: unsure at all n locations US-09-371-146A-251515
                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: unsure at all n locations US-09-304-517A-251515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 251515, Application US/09371146A
GENERAL INFORMATION:
APPLICANT: CHEIKH, Nordine
APPLICANT: Liu, Jingdong
TITLE OF INVENTION: ANNOTATED PLANT GENES
FILE REFRENCE: 38-21[1509]/
CURRENT APPLICATION NUMBER: US/09/371,146A
CURRENT FILING DATE: 1999-08-09
PRIOR FILING DATE: 1999-06-06
NUMBER OF SEQ ID NOS: 294310
                                                                                                                         ANDOCATED Plant (
38-21(15097)B
CURRENT APPLICATION NUMBER: US/09/304,517A
CURRENT ELLING DATE: 1999-05-06
NUMBER OF SEQ ID NOS: 295529
SEQ ID NO 251515
LENGTH: 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 53;
Pred. No.
                              %2-09-304-517A-251515/c
; Sequence 251515, Application US/09304517A
; GENERAL INFORMATION:
                                                                                        Chelkh, Nordine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501 AAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 47.9
Matches 152; Conservative
                                                                                                         APPLICANT: Liu, Jingdong
TITLE OF INVENTION:
FILE REFERENCE: 38-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Glycine max
                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-371-146A-251515/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 251515
LENGTH: 458
                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           543 TGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAA 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  543 TGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAAGTAAAA 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      363 GAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAG 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTAMAMATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATC 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423 CTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATC 482
                                                                                                                                              ACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATC 542
                                                                                                                                                                                                                   437 AAAAAAATAACAACGAAAACACAAAAATCTTAATTTTTATTTTTAAAAATAAAAA 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            303 AGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAG 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 363 GAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAG 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 8.5%; Score 53.2; DB 59; Length 562; Best Local Similarity 47.9%; Pred. No. 5.3; Matches 151; Conservative 0; Mismatches 164; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; OGGANISM: Zea mays
. OTHER INFORMATION: CLONE ID: LIB3592-004-P1-N6-E5
US-60-209-830-11469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Castiglioni, Pacic E.
APPLICANT: Hardeman, Kristine J.
APPLICANT: Hardeman, Kristine J.
APPLICANT: La Rosa, Thomas J.
TITLE OF INVENTION: PLANTS
TITLE OF INVENTION: PLANTS
FILE REFERENCE: 38-21(51934)A
CURRENT APPLICATION NUMBER: US/60/209,830
CURRENT FILING DATE: 2000-06-06
SEQ ID NO 11469
SEQ ID NOS: 62628
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 11469, Application US/60209830 GENERAL INFORMATION:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                  603 AAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAAGAAAAAAAAA 511
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-60-209-830-11469
                                                                                                                                                                                                                                                                                                                               603
                                                                                                                                          8
                                                                                                                                                                                ò
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                    ô
                                                                                                       ò
```

ဖ

```
301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                           Length 458;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 8.5%; Score 53; DB 25; Le
Best Local Similarity 47.9%; Pred. No. 5.6;
Matches 152; Conservative 0; Mismatches 165;
                                                                                                                                                                                                               Annotaated Plant Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Annotated Plant Genes
                                                                                                                                                                                                                                                                                                                                          ORGANISM: Glycine max CTHER INFORMATION: unsure at all n locations US-09-654-617-63699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000-09-05
463173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Kovalic, David K.
APPLICANT: Liu, Jingdong
TITLE OF INVENTION: Annotated Plant
FILE REFERENCE: 38-21(15097)D
CURRENT APPLICATION NUMBER: US/09/654,617
CURRENT FILING DATE: 2000-09-05
NUMBER OF SEQ ID NOS: 463173
                                                                                                                            US-09-654-617-63699/c
; Sequence 63699, Application US/09654617
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 63699, Application US/09684016 GENERAL INFORMATION:
APPLICANT: Kovalic, David K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601 AAAAAAAAAAAAAA 617
                                                               87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     103 TAAAAAAAATATATAA
                                 601 AAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
SEQ ID NO 63699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-09-684-016-63699/c
                                                                                                                                                                                                                                                                                                             LENGIH: 458
                                                               g
   셤
                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Byrum, Joseph R.
APPLICANT: Byrum, Joseph R.
APPLICANT: Heck, Gregory R.
APPLICANT: Heck, Gregory R.
APPLICANT: Thompson, Michael D.
APPLICANT: Thompson, Michael D.
TITLE OF INVENTION: PLANTS
TITLE OF INVENTION: PLANTS
TITLE OF INVENTION: PLANTS
CURRENT APPLICATION NUMBER: US/09/391,630
CURRENT FILING DATE: 1999-09-08
SEQ ID NOS: 18889
LENGTH: 458
 ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                          421 AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                          481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                         541 TCTGCATTGATAATATGGCCTTAGCCATTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                               301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                                                                                                         301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 TCTGCATTGATAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 8.5%; Score 53; DB 17; Length 458; Best Local Similarity 47.9%; Pred. No. 5.6; Matches 152; Conservative 0; Mismatches 165; Indels
Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: unsure at all n locations COTHER INFORMATION: Clone ID: LIB3053-011-Q1-N1-C9 US-09-391-630-15771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 15771, Application US/09391630 GENERAL INFORMATION:
ö
                                                                                                                                                                                                                                                                                                                                                       601 AAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-09-391-630-15771/c
152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                          g
                                                            셤
                                                                                            ö
                                                                                                                                                          ò
                                                                                                                                                                                     g
                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

ö

Gaps

; 0

420

480

```
541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAAGTAA 600
                                                                 Search completed: November 2, 2002, 00:37:09 Job time : 1846.39 secs
                                                                                                      4
                                                                         g
                                                                                                      à
                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A.
                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                       481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 ACAGAACAAACTCAAAGCCAGCTACATCCTAACCAAGAAAATGAAAATCATAATA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 AGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                  361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                             421 AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA 480
                                                                                                                                                                                                                                                                  541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                      301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                                                                                                                                   Score 53; DB 27; Length 458;
Pred. No. 5.6;
0; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 458;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 53; DB 36; Length 45
Pred. No. 5.6;
0; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: unsure
LOCATION: (1)..(458)
OTHER INFORMATION: unsure at all n locations
US-09-985-678-251515
; LOCATION: (1)..(458)
; OTHER INFORMATION: unsure at all n locations
US-09-684-016-63699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 25115, Application US/09985678
GENERAL INFORMATION:
APPLICANT: Chelkh, Nordine
FPELICANT: Chelkh, Nordine
TITLE OF INVENTION: Annotated Plant Genes
FILE REFERENCE: 16517.255/38-21(15097)F
CURRENT APPLICATION NUMBER: US/09/985,678
CURRENT FILING DATE: 2001-11-05
PRIOR APPLICATION NUMBER: US 09/304,517
PRIOR FILING DATE: 1999-05-06
NUMBER OF SEQ ID NOS: 295529
SEQ ID NO 251315
LENGTH: 458
                                                           Query Match
Best Local Similarity 47.9%;
Matches 152; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 47.9%;
Matches 152; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
US-09-985-678-251515/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                õ
                                                                                                                                                                                                                                           ò
                                                                                                                        à
```

COLUMN WAR BENG SIHL

```
November 1, 2002, 22:55:48; Search time 242.042 Seconds (without alignments) 9300.473 Million cell updates/sec
                                                                                                                                                                                                                                5787814
GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                         2893907 seqs, 1806667767 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                           - nucleic search, using sw model
                                                                                                                                                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                  seq length: 0 seq length: 2000000000
                                                                                                                                                                                        US-09-881-556-4
                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB
Maximum DB
                                                                           OM nucletc
                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                 Run on:
                                                                                                                                                                                          Title:
```

Pending_Patents_NA_New:*

| cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US06_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US07_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US08_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US08_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US08_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US08_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq:*
|

Sequence 5778, Ap Sequence 135, Ap Sequence 112, Ap Sequence 1301, Ap Sequence 165, Appl Sequence 165, Appl Sequence 1483, Ap Sequence 211, Appl Sequence 211, Appl Sequence 224, Appl Sequence 224, Appl Sequence 524, Appl Sequence 52, Appl Sequence 349, App Sequence 207, App Sequence 1, Appli Description 3 US-10-239-676-52 3 US-10-239-676-30 3 US-10-239-676-20 3 US-10-239-676-10 0S-09-785-2768-5778 2 US-10-155-881-3856 2 US-10-155-881-3856 3 US-10-155-881-3856 3 US-10-239-676-165 3 US-10-239-676-165 3 US-10-239-676-183 3 US-10-239-676-211 3 US-10-239-676-211 3 US-10-239-676-211 3 US-10-239-676-211 3 US-10-239-676-211 3 US-10-239-676-211 3 US-10-239-676-212 5 US-10-239-676-224 5 US-10-239-676-224 5 US-10-239-676-224 SUMMARIES DB Query Match Length 9539 10619 10619 2077 2077 2077 4661 13606 2729 2729 2729 113606 11403 11036 11036 11036 11036 \vec{u} \vec{o} \vec{o} \vec{m} \vec{c} \vec{n} \vec{n} \vec{n} \vec{a} \vec{a} \vec{a} \vec{n} \vec{u} \vec{u} \vec{u} \vec{u} 49.6 49.4 48.6 48.2 446.64 47 466.66 466.66 466.44 85.02 465.02 465.03 465.03 4 4 4 8 4 4 8 Result υU υU 0000

ä

Gaps

;

312 TCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAAT 371

8.3%; Score 52; DB 13; Length 9539; 48.1%; Pred. No. 0.47; tive 0; Mismatches 190; Indels

Best Local Similarity 48.1 Matches 177; Conservative

8 6 B

ð

Query Match

	mo sapiens
10-221-613-235 10-221-613-235 10-1539-676-22 10-221-613-227 10-221-613-381 10-221-613-193 10-231-676-51 10-239-676-51 10-239-676-51 10-239-676-51 10-239-676-51 10-239-676-51 10-239-676-51 10-239-676-51 10-231-613-389 10-221-613-389 10-221-613-389 10-221-613-389 10-221-613-389 10-221-613-399 10-221-613-399 10-221-613-399 10-221-613-399 10-221-613-399 10-221-613-422 10-221-613-439	y treated genomic DNA (Homo
	INFORMATION: chemically -676-52
19 44.2 7.1 6012 20 43.8 7.0 5687 21 43.6 7.0 5687 22 43.6 7.0 167918 24 43.4 7.0 17918 25 43.4 7.0 17918 26 43.6 9.9 539 27 42.8 6.9 7432 28 42.8 6.9 19380 30 42.8 6.9 19380 31 42.6 6.8 10640 32 42.4 6.8 10640 33 42.4 6.8 10640 34 42.6 6.8 10640 34 42.6 6.8 10640 34 42.6 6.8 10640 34 42.6 6.8 10640 35 42.6 6.9 10583 42.6 6.9 19380 42.6 6.9 19380 42.6 6.9 19380 42.6 6.9 10640 34 42.6 6.8 10640 35 42.6 6.9 10640 36 41.8 6.7 783 37 41.8 6.7 783 38 41.8 6.7 1635 44 41.6 6.7 1635 44 41.6 6.7 1635 45 41.6 6.7 1635 45 41.6 6.7 1635 46 41.6 6.7 1635 47 41.6 6.7 1635 48 41.6 6.7 1635 49 5239 40 41.8 6.7 1635 40 41.8 6.8 1004 40 40 40 40 40 40 40 40 40 40 40 40 40 4	RMATION: 52
19 44.2 21 43.8 22 43.8 23 43.4 24 43.5 25 42.8 26 42.8 27 42.8 30 42.8 31 42.4 31 42.6 32 42.4 33 42.4 34 42.8 36 42.6 37 42.8 40 41.8 41.6 42.4 34 42.6 35 42.4 36 42.6 37 42.8 38 41.8 40 41.8 41.6 42.6 43 42.6 36 42.6 37 42.7 36 42.6 37 42.8 38 41.8 40 41.8 41.6 42.6 43 42.6 36 42.6 37 42.6 38 41.8 41.6 42.6 43 41.6 44 6.6 45 41.6 46 41.6 47 6 41.8 47 6 41.8 48 6 41.6 49 6 41.8 40 6 40.0 2000-04-06 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-06-30 2000-08-20 2000-08-20 2000-08-30 2000-0	гнек -239
SECON NO. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	us-10

Database

```
g
                                                                                        g
                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                432 GTGGAAAGTTATGGGGAAAAGGATAAAAT-GGTTGATGGTGAGCAAGTAATCACTAAAAA 490
                                                                                        491 TGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGA 550
                                                                                                                                          GCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACT 485
                           306 ACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAA 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  366 GGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTG 425
372 TCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGAT 431
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: OLEK, ALexander
APPLICANT: OLEK, ALexander
APPLICANT: DLEFENBROCK, Christian
APPLICANT: PIEPENBROCK, Christian
APPLICANT: PIEPENBROCK, Christian
APPLICANT: DISTORMENTION LIBRATION OF DISTORMENT APPLICATION NUMBER: US/10/221,613
CURRENT APPLICATION NUMBER: DC7/EP01/02945
DE 10013847.00
DE 10019738.8
DE 1001973.8
DE 1001973.8
DE 10043826.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           486 AAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-221-613-349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 49.6; DB 13; Length 5493;
Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches 164;
                                                                                                                                                                                                                                                                                                                                                          Sequence 349, Application US/10221613 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.0%;
ilarity 47.4%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2001-03-15
2000-03-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-09-01
NUMBER OF SEQ ID NOS: 428
SEQ ID NO 349
LENGTH: 5493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 148; Conserv
                                                                                                                                                                                                                                                                   11111111
290 AAAAAAC 283
                                                                                                                                                                                                                                                 611 AAAAAAAC 618
                                                                                                                                                                                                                                                                                                                          RESULT 2
US-10-221-613-349/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-04-06 2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-06-30
                           g
                                                        ð
                                                                                       셤
                                                                                                                       ò
                                                                                                                                                  a
                                                                                                                                                                                  ò
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
ATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAAAAAA 605
                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PIZ53C1N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2002-07-29
PRIOR APPLICATION NUMBER: US/10/206,008
CURRENT FILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2000-01-31
PRIOR PILING DATE: 2000-01-31
PRIOR APPLICATION NUMBER: 60/180,628
PRIOR APPLICATION NUMBER: 60/214,886
PRIOR APPLICATION NUMBER: 60/214,886
PRIOR APPLICATION NUMBER: 60/217,487
PRIOR APPLICATION NUMBER: 60/220,788
PRIOR APPLICATION NUMBER: 60/220,788
PRIOR APPLICATION NUMBER: 60/220,788
PRIOR APPLICATION NUMBER: 60/220,963
PRIOR PILING DATE: 2000-07-11
PRIOR PILING DATE: 2000-07-12
PRIOR PILING DATE: 2000-07-14
PRIOR PILING DATE: 2000-07-14
PRIOR PILING DATE: 2000-07-14
PRIOR PELING DATE: 2000-07-14
PRIOR PELING DATE: 2000-08-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R FILING DATE: 2000-08-14

**R PELICATION NUMBER: 60/216,880

**R PELICATION NUMBER: 60/225,270

**A APPLICATION NUMBER: 60/225,270

**A APPLICATION NUMBER: 60/251,869

**R APPLICATION NUMBER: 60/251,869

**R FILING DATE: 2000-12-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/241,809
FILING DATE: 2000-10-20
APPLICATION NUMBER: 60/249,299
FILING DATE: 2000-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/234,274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/224,518
FILING DATE: 2000-08-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/224,519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/235,834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/228,924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60/236,369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-08-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          000-09-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 2000-09-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000-09-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ICATION NUMBER:
                                                                                                                                                   AAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Rosen et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
546
                                                                                                                 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
```

```
PRIOR APPLICATION NUMBER: 60/236, 327
PRIOR PILICATION NUMBER: 60/241, 785
PRIOR FILIKE DAYE: 5000-09-29
PRIOR FILIKE DAYE: 5000-09-20
PRIOR PLILICATION NUMBER: 60/251, 66
PRIOR PLILICATION NUMBER: 60/251, 66
PRIOR PLILICATION NUMBER: 60/251, 66
PRIOR PRICING DAYE: 5000-10-10
PRIOR PLILICATION NUMBER: 60/251, 66
PRIOR PLILICATION NUMBER: 60/251, 86
PRIOR PLILICATION NUMBER: 60/251, 86
PRIOR PLILICATION NUMBER: 60/229, 344
PRIOR PLILICATION NUMBER: 60/229, 344
PRIOR PLILICATION NUMBER: 60/229, 344
PRIOR PLILICATION NUMBER: 60/229, 343
PRIOR PLILICATION NUMBER: 60/239, 349
PRIOR PLILICATION NUMBER: 60/239, 349
PRIOR PLILICATION NUMBER: 60/239, 349
PRIOR APPLICATION NUMBER: 60/239, 349
PRIOR PLILICATION NUMBER
```

R FILING DATE: 2000-11-17
R APPLICATION NUMBER: 60/249,245
R FILING DATE: 2000-11-17
R APPLICATION NUMBER: 60/249,244
R FILING DATE: 2000-11-17
R APPLICATION NUMBER: 60/249,217
R FILING DATE: 2000-11-17 R FILING DATE: 2000-09-08
RAPPLICATION NUMBER: 60/231,414
RE FILING DATE: 2000-09-08
RAPPLICATION NUMBER: 60/231,244
RR RILLING DATE: 2000-09-08
RR RAPLICATION NUMBER: 60/233,064
RR FILING DATE: 2000-09-18 APPLICATION NUMBER: 60/246,475 FILING DATE: 2000-11-08 APPLICATION NUMBER: 60/231,243 FILING DATE: 2000-09-08 APPLICATION NUMBER: 60/233,065 APPLICATION NUMBER: 60/225,266 FILING DATE: 2000-08-14 APPLICATION NUMBER: 60/249,218 FILING DATE: 2000-11-17 APPLICATION NUMBER: 60/249,211 FILING DATE: 2000-11-17 APPLICATION NUMBER: 60/249,215 FILING DATE: 2000-11-17
APPLICATION NUMBER: 60/249,297
FILING DATE: 2000-11-17
APPLICATION NUMBER: 60/232,400 FILING DATE: 2000-09-14 APPLICATION NUMBER: 60/231,242 FILING DATE: 2000-09-08 FILING DATE: 2000-09-08
APPLICATION UNDHER: 60/232,081
FILING DATE: 2000-09-08
APPLICATION NUMBER: 60/232,080 APPLICATION NUMBER: 60/241,826 FILING DATE: 2000-10-20 APPLICATION NUMBER: 60/241,786 FILING DATE: 2000-10-20 FILING DATE: 2000-11-17 APPLICATION NUMBER: 60/249,208 FILING DATE: 2000-11-17 FILING DATE: 2000-11-17
APPLICATION UNMBER: 60/249,212
FILING DATE: 2000-11-17
APPLICATION NUMBER: 60/249,207 APPLICATION NUMBER: 60/249,264 FILING DATE: 2000-11-17 APPLICATION NUMBER: 60/249,244 APPLICATION NUMBER: 60/249,214 FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/233,063 FILING DATE: 2000-09-14 APPLICATION NUMBER: 60/232,399 APPLICATION NUMBER: 60/241,808 FILING DATE: 2000-10-20 FILING DATE: 2000-09-14 APPLICATION NUMBER: 60/232,397 FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/232,401 APPLICATION NUMBER: 60/249,213 APPLICATION NUMBER: 60/241,221 2000-06-30 000-09-14 FILING DATE: FILING DATE: FILING DATE: PRIOR
PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR

391 ATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAA 450

ò

7.9%; Score 49.4; DB 13; 51.1%; Pred. No. 1.3; tive 0; Mismatches 111;

Query Match
Best Local Similarity 51.1¹⁸
Matches 116; Conservative

ö

0; Gaps

Length 1101; Indels 0; us-09-881-556-4.rnpn

```
FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                Sequence 1, Application US/10239676
GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
APPLICANT: DIEPENBROCK, Christian
APPLICANT: OLEK, Mutt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Gene Regulation
FILE REPERBROER: 5013.1003
CURRENT FILING DATE: 2002-09-24
PRIOR PELING DATE: 2002-09-24
PRIOR SPELICATION NUMBER: PCT/EP01/03968
DE 10019058.8
DE 10019058.8
DE 100135529.7
DE 10043826.1
PRIOR FILING DATE: 2001-04-06
2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                  1561 CTTTAAAAAAAAAAAAAAAA 1502
                                                                                                      511 CGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCCTTAGCCATT 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430 ATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAA 489
835 ATCTTTCACCTCACCCCCCCCCTCCTCCTTGGCTTTAATTATGCTAATGTTGGAGGAGAA 894
                                                                370 ATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490 ATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                  451 AGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-239-676-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 10619;
                                                                                                                                                                                             Score 48.6; DB 13; Length
Pred. No. 2.2;
0; Mismatches 124; Indels
                                                                                                                                                                      RESULT 5
US-09-785-276A-5778
; Sequence 5778, Application US/09785276A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 7.8%;
Best Local Similarity 49.8%;
Matches 123; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-09-01
NUMBER OF SEQ ID NOS: 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ||||||||
|1501 AAAAAA 1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610 AAAAAA 616
                                                                                                                                                                                                                                                          RESULT 4
US-10-239-676-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGIH: 10619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
음
                                                                  윱
                                                                                                  ö
                                                                                                                                  g
                                                                                                                                                                      δ
                                                                                                                                                                                                     g
                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
```

```
ö
                 TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF TITLE OF INVENTION: HUMAN PROSTATE CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               351 CATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAAT 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             531 ATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCA 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGT 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       380 AAAAAANTAAAAAGNNAAAATTTGNNAAAAAAAAAAGCCCCNTNAAAAANAAAAANNTAAA 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
LOCATION: 31, 50, 51, 54, 57, 59, 60, 79, 80, 89, 93, 95, 96, 97, 1111,
LOCATION: 117, 118, 130, 147, 155, 156, 158, 160, 164, 170, 173, 230,
LOCATION: 231, 233, 236, 245, 260, 266, 274, 288, 301, 302, 306,
LOCATION: 314, 337, 341, 346, 354, 363, 366, 370, 374, 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291 AATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAT 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           435, 441,
457, 458,
471, 472,
487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500, 505, 506, 507, 526,
537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match 7.7%; Score 48.2; DB 9; Length 555; Best Local Similarity 37.4%; Pred. No. 2; Matches 122; Conservative 0; Mismatches 204: Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422,
454,
468,
484,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) NAME/KEY: misc_feature

) LOCATION: 488, 491, 492, 495, 496, 497, 498,

) LOCATION: 527, 530, 532, 533, 534, 535, 536,

) OTHER INFORMATION: n = A,T,C or G
                                                                                           THILE REPERRINGE: MRI-007B
CURRENT APPLICATION NUMBER: US/09/785,276A
CURRENT FILID DATE: 2001-02-16
FRIOR APPLICATION NUMBER: 60/183,319
PRIOR FILING DATE: 2000-02-17
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-05-25
PRIOR FILING DATE: 2000-05-25
PRIOR FILING DATE: 2000-06-09
PRIOR FILING DATE: 2000-06-09
PRIOR FILING DATE: 2000-07-18
PRIOR FILING DATE: 2000-07-18
PRIOR FILING DATE: 2000-07-18
PRIOR FILING DATE: 2000-12-13
NUMBER OF SEQ ID NOS: 62332
SEQ ID NOS: 62332
SEQ ID NOS: 62332
SEQ ID NOS: 62332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: 379, 387, 395, 396, 405, LOCATION: 442, 443, 444, 445, 447, LOCATION: 459, 460, 461, 462, 464, LOCATION: 475, 476, 477, 478, 479, OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
LOCATION: 379, 387, 399
APPLICANT: Monahan,
```

```
SULT 8
-10-155-881-13051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-155-881-13051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                    g
                                                                                                                                    ò
                                                                                                                                                                 g
                                                                                                                                                                                             õ
                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                           AND OTHER MOLECULES ASSOCIATED WITH
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359 TCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACG 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGT 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299 CTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAA 358
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Epigenomics AG
TITLE OF INVENTION: Method and nucleic acids for the differentiation
TITLE OF INVENTION: Method and nucleic acids for the differentiation
TITLE OF INVENTION: Of prostate tumors
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/172,086
CURRENT FILING DATE: 2002-06-13
NUMBER OF SEQ ID NOS: 116
SEQ ID NO 112
LENGTH: 6944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        539 TATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-172-086-112
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                         DB 12; Length 2077;
                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches 170; Indels
                                                                                             Sequence 3856, Application US/10155881
GENERAL INFORMATION:
APPLICANT: Dotson, Stanton B.
APPLICANT: Kovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Lutflyya, Linda L.
APPLICANT: Hutflyya, Linda L.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND C:
TITLE OF INVENTION: TRANSCRIPTION IN PLANTS
FILE REFERENCE: 38-21(15300)J
CURRENT APPLICANTION NUMBER: US/10/155,881
CURRENT FILING DATE: 2002-05-22
NUMBER OF SEQ ID NOS: 37595
                                                                                                                                                                                                                                                                                                                                                                                         7.5%; Score 47;
46.7%; Pred. No. 3
   616
                               500 naaaannnaaaaaaaaaaaaa 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 112, Application US/10172086 GENERAL INFORMATION:
1684 AAAAAAAAAAAAAAAA 1702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 46.7
Matches 149; Conservative
                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-172-086-112/c
                                                                                                                                                                                                                                                                                                                                                           US-10-155-881-3856
                                                                                      US-10-155-881-3856
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
 ò
                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
```

```
APPLICANT: Dotson, Stanton B.
APPLICANT: Covalic, David K.
APPLICANT: Lutilyab Linda L.
APPLICANT: Lutilyab, Linda L.
APPLICANT: Lutilyab, Linda L.
APPLICANT: McInich, James
TILLE OF INVENTION: NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH
TILLE OF INVENTION: TRANSCRIPTION IN PLANTS
FILE REFERENCE: 38-21(15300),3
CURRENT APPLICATION NUMBER: US/10/155,881
CURRENT APPLICATION NUMBER: 2002-05-22
NUMBER OF SEQ ID NOS: 37595
SEQ ID NO 13051
                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                       5782 AAAAAAAAAAAAAAAAAAACTAATCTCTATCCTATTCATATCCTAAATACAACTT 5723
                                                                                                                                                                                                                5722 ттссаалалалалалалалалалалала 5663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 AGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481 TCACTAAAAATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 TCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATTGTCAACTCAAGTAA 600
                                                                                   333 AACCAAGAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAT 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 ACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATC 360
                                            Gaps
                                                                                                                                                                      393 CTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAG
                                                                                                                                                                                                                                                         453 GATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCG
                                                                                                                                                                                                                                                                                                                                              513 AAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                        ö
  Length 6944;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches 169;
DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 46.6;
Pred. No. 4.6
Score 46.8;
Pred. No. 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 13051, Application US/10155881 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.58;
7.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 46.77
Matches 148; Conservative
                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycine max
Query Match
Best Local Similarity
Matches 135; Conserv
```

9

g

```
APPLICANT: Dotson, Stanton B.
APPLICANT: Evolic, David K.
APPLICANT: Evolic, David K.
APPLICANT: Lutfiya, Linda L.
APPLICANT: Lutfiyya, Linda L.
APPLICANT: McIninch, James
TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH
TITLE OF INVENTION: TRANSCRIPTION IN PLANTS
FILE REFERENCE: 38-21(15300),
CURRENT APPLICATION NUMBER: US/10/155,881
CURRENT APPLICATION NUMBER: US/10/155,881
NUMBER OF FILING DATE: 2002-05-22
NUMBER OF SEQ ID NOS: 37595
SEQ ID NO 17885
          314 AAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTC 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    374 GAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGT 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              434 GGAAAGITATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAATGA 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATTATTGAAGATACTTCGAAAGAATTAGAAAATGTAAAGTATAAGTATCTGCATTGATAA 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.4%; Score 46.4; DB 13; Length 13606;
47.0%; Pred. No. 6.1;
tive 0; Mismatches 161; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 17885, Application US/10155881
; GENERAL INFORMATION:
      PIEPENBROCK, Christian
                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: unsure
; LOCATION: (4649, 7634, 7657)
US-10-239-676-165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 47.0
Matches 143; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10979 AAAA 10976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-10-155-881-17885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     614 AAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ő
                                                                                                                               APPLICANT: DIEPENBROCK, Christian
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BIEPENBROCK, Christian
APPLICANT: BIEPENBROCK, Christian
APPLICANT: BIEFLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Cell Cycle
CURRENT APPLICATION NUMBER: US/10/221,613
CURRENT FILING DATE: 2002-09-13
PRIOR APPLICATION NUMBER: PCT/EP01/02945
DE 10019078.8
DE 10019078.8
DE 10043826.1
DE 10043826.1
SPRIOR FILING DATE: 2001-03-15
2000-04-06
2000-04-06
2000-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4074 CCATCTCTCAATCCTCCAAAAAAATACTTTAATCCTACCCCTTATTTACAAATAACAAT 4015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 344 TGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCAAATCA 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224 AACAGGATCCAGCTCAGATCACACTCTGCTACTTCTCCAGAAGAAGGATTGGACTCAGAA 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGT 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAA 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-221-613-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 13; Length 4661;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 7.4%; Score 46.4; DB 13; Best Local Similarity 44.9%; Pred. No. 5.6; Matches 176; Conservative 0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAATAAACCAACAAAACGAACCAACCAAAA 3743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 165, Application US/10239676
GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
                                                                                                Sequence 93, Application US/10221613 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Artificial Sequence
2067 AAAAAAAAAAAAA 2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-239-676-165/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               404
```

g à q

ò

g

ð g ò

ŏ

쉽 ð g ò

_

```
APPLICANT: OLEK, ALEXander
APPLICANT: OLEK, ALEXander
APPLICANT: PIEDENBROCK, Christian
APPLICANT: BIELENBROCK, Christian
APPLICANT: BELLIN, Murt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Cell Cycle
FILE REFERENCE: 5013.1004
CURRENT FILING DATE: 2002-09-13
CURRENT FILING DATE: 2002-09-13
PRIOR APPLICATION NUMBER: PCT/EP01/02945
DE 10019058.8
DE 10019058.8
DE 10019058.8
DE 10043825.1
PRIOR FILING DATE: 2001-03-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    370 ATTCGAGTTTTAATACACTAAATCTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAG 429
                                                                                                                                                                                                                                                                                                                            459 ATGGTTGATGGTGAGCAAGTAATCACTAAAATGACATTATTGAAGATACTTCGAAAGAA 518
                                                                                                                                                                                                                                                                                                                                                                                                     519 ATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATA 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 ACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAAAATCATAATAATCAGGAAGGTA 369
                                                                                              CAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAA 338
                                                                                                                                                                         GAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCA 398
                                                                                                                                                                                                                                                 AATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAA 458
                                                                                                                                                                                                                                                                                     CCAGAAACAGGATCCAGGTCAGATCACACTCTGCTACTTCTCCAGAAGAAGGATTGGACT 278
                                                                                                                                   Gaps
                                               OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 7312;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.3%; Score 45.6; DB 13; Length 46.8%; Pred. No. 8.3;
Live __0; Mismatches 164; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-221-613-311/c; Sequence 311, Application US/10221613; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         datches 144; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 428
SEQ ID NO 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-221-613-311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 7312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-09-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                          38
                                                                                                                                                                         339
                                                                                                                                                                                                                                                 399
                     219
                                                                                              279
                                                                                                                                   86
                                                                                                                                                                                                                                                                                                                                                               278
                                                                                                                                                                                                                                                                                                                                                                                                                                        338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                         셤
                                                                                                                             g
                                                                                                                                                                       ò
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                              ò
                       ç
                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1483, Application US/10198846

Sequence 1483, Application US/10198846

GENERAL INFORMATION:
APPLICANT: Lillle, James
APPLICANT: Xu Yongyao
APPLICANT: Wang, Youghen
APPLICANT: Steinmann, Kathleen
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
CURRENT APPLICATION NUMBER: 05/10/198,846
CURRENT FILING DATE: 2002-07-18
PRIOR PRILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR PRILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1483
                                                                                                                                                                                                      GAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAATCTTCCA 398
                                                                                                                                                                                                                                                                                                                        399 AATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAGGATAAA 458
                                                                                                                                                                                                                                                                                                                                                                                                   ATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCGAAAGAA 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATA 578
                                                                                                                                                                       279 CAGAACGTTACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAA 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 46, 52, 75, 78, 79, 80, 85, 91, 100, 102, 107, 109, 114, LOCATION: 123, 127, 136, 142, 149, 156, 159, 160, 162, 168, 169, 173, LOCATION: 177, 195, 203, 207, 210, 211, 213, 219, 220, 224, 230, 251, LOCATION: 261, 268, 277, 309, 327, 333, 337, 339, 355, 359, 364

OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:

NAME/KEY: misc_feature

LOCATION: 365, 380, 389, 404, 408, 413, 416, 429, 434, 435, 438, LOCATION: 365, 380, 389, 473, 479, 490, 511, 519, 520, 522, 525

UCCATION: 400, 458, 473, 479, 490, 511, 519, 520, 522, 525

US-10-198-846-1483
                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                            Length 2729;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 525;
                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 7.3%; Score 45.6; DB 13; Best Local Similarity 39.1%; Pred. No. 6.5; Matches 156; Conservative 0; Mismatches 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 12;
                                                                                                                Pred. No. 5.8;
0; Mismatches 183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTAAATTGTCAACTCAAGTAAAAAAAAAAAAAAA 617
                                                                                              7.4%; Score 46.2;
46.0%; Pred. No. 5.8
                                                                                                                Best Local Similarity 46.0
Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
46, 52, 75,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                   ; TYPE: DNA
; ORGANISM: Glycine max
US-10-155-881-17885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-198-846-1483
LENGTH: 2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                              Query Match
                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                         ò
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
```

```
Sequence 211, Application US/10239676
GENERAL INFORMATION:
APPLICANT: DLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Gene Regulation
FILE REFERENCE: 5013.1003
CURRENT APPLICATION NUMBER: US/10/239,676
CURRENT APPLICATION NUMBER: PCT/EP01/03968
DE 10019058.8
DE 10019058.8
DE 10019058.9
DE 10043826.1
PRIOR FILING DATE: 2001-04-06
S000-04-06
S000-04-07
S000-09-01
NUMBER OF SEQ ID NOS: 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ij
                                                                                                                                                             2173 ACACAAAAACACCATTAAAATAAATTAAATTCACTTACAATAACACCAAATTATAACAAAAT 2114
                                                                                                    430 ATGTGGAAAGTTATGGGGAAAAGGATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAA 489
                                                                   490 ATGACATTATTGAAGATACTTCGAAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              407 CAATCTTTCACGCAAGCTGGCAGATGTGGGAAAGTTATGGGGAAAAGGATAAAATGGTTGA 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAATCACTTCTACAGAACAAACTCAAAGCCAGCTACATATCCTAACCAAGAAAATGAA 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACAC-TAAATCTTCCAAATCAACC 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAAATGTAAAGTATCTGCATTGATAAATATGGCCTTAGCCATTTCCAAATATCTAAATT 586
                                                                                                                                         ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-239-676-211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 13; Length 8996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 7.3%; Score 45.4; DB 13; Best Local Similarity 48.0%; Pred. No. 9.3; Matches 159; Conservative 0; Mismatches 171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           587 GTCAACTCAAGTAAAAAAAAAAAAAAAAA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                 |||||||
1993 TAAAAAA 1986
                                                                                                                                                                                                           610 AAAAAAA 617
                                                                                                                                                                                                                                                                                                  RESULT 14
US-10-239-676-211/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 211
LENGTH: 8996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       527
                                                                                                 qq
ò
                                 셤
                                                                                                                                         à
                                                                                                                                                                     g
                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         đ
```

```
APPLICANT: OLEK, Alexander
APPLICANT: PIEBENBROCK, Christian
APPLICANT: PIEBENBROCK, Christian
APPLICANT: BERLIN, Kurt
TILLE OF INVENTION: Diagnosis of Diseases Associated with Gene Regulation
FILE REFERENCE: 5013.1003
CURRENT APPLICATION NUMBER: US/10/239,676
CURRENT APPLICATION NUMBER: PCT/EP01/03968
DE 1001958.8
DE 1001958.8
DE 10013229.7
DE 10043826.1
PRIOR FILING DATE: 2001-04-06
2000-04-07
2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7604 ACACTAACTACTAATACCAACTATATATATTTTTTAAAATATAAATTCTAA 7545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 333 AACCAAGAAAATGAAAATCATAATAATCAGGAAGGTAATTCGAGTTTTAATACACTAAAT 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       393 CTTCCAAATCAACCCAATCTTTCACGCAAGCTGGCAGATGTGGAAAGTTATGGGGAAAAG 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   453 GATAAAATGGTTGATGGTGAGCAAGTAATCACTAAAAATGACATTATTGAAGATACTTCG 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               513 AAAGAAATTAGAAACAAAATGTAAAGTATCTGCATTGATAAATATGGCCCTTAGCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 11036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 45; DB 13; Length 11
Pred. No. 11;
0; Mismatches 150; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: unsure
; LOCATION: (1927..1928, 1943, 1956, 1958, 1981)
US-10-239-676-117
1, 2002, 23:32:35
                                                                       RESULT 15
US-10-239-676-117/c
; Sequence 117, Application US/10239676
; GENERAL INFORWATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 7.2%;
Best Local Similarity 47.4%;
Matches 135; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-09-01
NUMBER OF SEQ ID NOS: 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: November
Job time: 298.542 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 117
LENGTH: 11036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```